

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Division 1 Managers

Managers plan, direct, co-ordinate and evaluate the overall activities of enterprises, governments and other organizations, or of organizational units within them, and formulate and review their policies, laws, rules and regulations. Tasks performed by managers usually include: formulating and advising on the policy, budgets, laws and regulations of enterprises, governments and other organizational units; establishing objectives and standards and formulating and evaluating programmes and policies and procedures for their implementation; ensuring appropriate systems and procedures are developed and implemented to provide budgetary control; authorising material, human and financial resources to implement policies and programmes. Monitoring and evaluating performance of the organization or enterprise and of its staff; selecting, or approving the selection of staff; ensuring compliance with health and safety requirements; planning and directing daily operations; representing and negotiating on behalf of the government, enterprise or organizational unit managed in meetings and other forums.

Occupations in this Division are classified into the following Sub Divisions:

11	Chief Executives, Senior Officials and Legislators
12	Administrative and Commercial Managers
13	Production and Specialized Services Managers

14 Hospitality, Retail and Other Services Managers

Sub Division 11 Chief Executives, Senior Officials and Legislators

Chief Executives, Senior Officials and Legislators formulate and review the policies and plan, direct, co-ordinate and evaluate the overall activities of enterprises, governments and other organizations with the support of other managers.

Tasks performed usually include: presiding over or participating in the proceedings of legislative bodies, board of directors and committees; formulating and advising on the policy budgets, laws and regulations of enterprises, governments and other organizations; establishing objectives for enterprises, government departments or agencies and other organizations; formulating or approving and evaluating programmes and policies and procedures for their implementation; ensuring appropriate systems and procedures are developed and implemented to provide budgetary control; authorising material, human and financial resources to implement policies and programmes; monitoring and evaluating performance of the organization or enterprise; selecting, or approving the selection of senior staff; performing ceremonial duties and representing the enterprise, government, organization or community at official occasions and in meetings, negotiations, conventions and public hearings.

Occupations in this Sub Division are classified into the following Groups:

111	Legislators and Senior Officials
112	Managing Directors and Chief Executives

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Group 111

Legislators and Senior Officials

Legislators and senior officials determine, formulate, advise on and direct the implementation of policies of national, state, regional or local governments or communities, and of special interest organizations. They make, ratify, amend or repeal laws, public rules and regulations and plan, organize, direct, control and evaluate the overall activities of government departments and agencies, traditional communities and special interest organizations

Occupations in this Group are classified into the following Families:

1111 Legislators
1112 Senior Government Officials
1113 Traditional Chiefs and Heads of Villages
1114 Senior Officials of Special-interest Organizations

Family 1111

Legislators

Legislators determine, formulate, and direct policies of national, state, regional or local governments and international governmental agencies. They make, ratify, amend or repeal laws, public rules and regulations. They include elected and non-elected members of parliament, councils and governments.

1111.0100

Elected Official, Union Government

Elected Official, Union Government serves in various capacities in legislative and executive branches of Union Government. Performs administrative, executive or advisory functions, which include serving as head of the Indian Union; presiding over deliberations of Houses of Parliament; leading council of ministers of Union Government; shaping, determining and defining government policies and directing their application and execution through departmental heads; representing interests of voters in Parliament, on committees and commissions; and taking part in making, amending or repealing laws. Is designated according to work performed or post held, such as:

PRESIDENT OF INDIA; RASHTRAPATI. VICE PRESIDENT OF INDIA; UP-RASHTRAPATI. SPEAKER, LOK SABHA. CHAIRMAN, RAJYA SABHA. PRIME MINISTER OF INDIA. MINISTER, UNION GOVERNMENT. MEMBER OF PARLIAMENT.

ISCO 08 Unit Group Details:

Code 1111
Title Legislators

1111.0200

Elected Official, State Government

Elected Official, State Government serves in various capacities in legislative and executive branches of State Government. Performs, administrative, executive or advisory functions, which include leading council of ministers of State Government; shaping, determining and defining government policies, and directing application and execution of government policies through departmental heads; presiding over deliberations of Houses of State Legislatures; committees and commissions; and taking part in making, amending or repealing laws. Is designated

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

according to work performed or post held, such as: CHIEF MINISTER. MINISTER, STATE GOVERNMENT. CHAIRMAN, LEGISLATIVE COUNCIL. SPEAKER, LEGISLATIVE ASSEMBLY. MEMBER, LEGISLATIVE ASSEMBLY.

ISCO 08 Unit Group Details:

Code	1111
Title	Legislators

1111.0300

Elected Official, Local Bodies

Elected Official, Local Bodies serves in various capacities in policy making and executive branches of local bodies. Performs administrative, executive or advisory functions in matters entrusted to local bodies e.g. public health, sanitation, primary education, building and road construction, drainage, street-lighting, raising and collection of admissible local taxes and their proper administration, and all other connected matters for the benefit of local people, including enforcement of local laws and emergency measures as necessary. Is designated according to work performed or post held such as: MAYOR, MUNICIPAL CORPORATION. COUNCILLOR, CITY MUNICIPAL CORPORATION. CHAIRMAN, CITY MUNICIPAL CORPORATION. CHAIRMAN, MUNICIPALITY. MEMBER MUNICIPALITY. CHAIRMAN, DISTRICT BOARD. MEMBER, DISTRICT BOARD. CHAIRMAN, CANTONMENT BOARD. MEMBER, CANTONMENT BOARD. CHAIRMAN, TOWN AREA COMMITTEE. MEMBER, TOWN AREA COMMITTEE. CHAIRMAN, BLOCK SAMITI. SARPANCH, PANCHAYAT. MEMBER, PANCHAYAT.

ISCO 08 Unit Group Details:

Code	1111
Title	Legislators

1111.9900

Legislators, Other

Elected Officials, Other include all other Elected Officials performing administrative, executive or advisory functions in educational, religious, social, political and community welfare organizations and such other permanent or ad-hoc private bodies, not else-where classified.

ISCO 08 Unit Group Details:

Code	1111
Title	Legislators

Family 1112

Senior Government Officials

Senior government officials advise governments on policy matters, oversee the interpretation and implementation of government policies and legislation by government departments and agencies, represent their country abroad and act on its behalf, or carry out similar tasks in intergovernmental organizations. They plan, organize, direct, control and evaluate the overall activities of municipal or local, regional and national government departments, boards, agencies or commissions in accordance with legislation and policies established by government and legislative bodies.

1112.0100

Administrative Official, Union Government

Administrative Official, Union Government serves in various capacities under Union Government. Performs administrative and advisory functions, which include advising minister on all

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

matters of policy and administration within his sphere of responsibility; organizing and directing work of ministries and departments; taking policy decisions to extent authorized; supervising execution and implementation of policies and decisions by field or subordinate offices etc. Is designated according to work performed or post held, such as: MEMBER, OF UNION PUBLIC SERVICE COMMISSION. MEMBER, CENTRAL BOARD OF REVENUE. MEMBER, RAILWAY BOARD. MEMBER PLANNING COMMISSION. SECRETARY TO THE GOVERNMENT OF INDIA JOINT SECRETARY TO THE GOVERNMENT OF INDIA. DEPUTY SECRETARY TO THE GOVERNMENT OF INDIA. UNDER SECRETARY TO THE GOVERNMENT OF INDIA. DIRECTOR-GENERAL, CIVIL AVIATION. DIRECTOR GENERAL, ALL INDIA RADIO DIRECTOR-GENERAL, POSTS AND TELEGRAPHS. DIRECTOR-GENERAL, SUPPLIES AND DISPOSALS. DIRECTOR-GENERAL SHIPPING. DIRECTOR-GENERAL OF EMPLOYMENT AND TRAINING. CONTROLLER AND AUDITOR GENERAL. CONTROLLER, IRON AND STEEL. COMMISSIONER, TEXTILE. CUSTODIAN GENERAL. CHIEF CONTROLLER OF IMPORTS AND EXPORTS. CHIEF COMMISSIONER, ELECTION. CHIEF COMMISSIONER, LABOUR. CHIEF COMMISSIONER, SALT. REGISTRAR-GENERAL, CENSUS.

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government
Officials

1112.0200 Diplomat

Diplomat represents Union of India in other countries or at international

organizations, meetings and conferences. Interprets policies of Indian Government in foreign countries and advises his Government on matters of foreign relations, trade, commerce, etc. Negotiates and enters into agreements with other countries and nations. Issues visas to foreigners for visit to India and looks after welfare of Indians abroad, and generally promotes interest of his country. Is designated according to rank held or work performed, such as: AMBASSADOR HIGH COMMISSIONER ENVOY MINISTER (DIPLOMAT) PERMANENT REPRESENTATIVE COUNSEL GENERAL CHARGE D AFFAIRS TRADE COMMISSIONER.

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government
Officials

1112.0300 Executive Officials, Union Government

Executive Official, Union Government serves in various executive capacities in Union Government, giving effect to policies and decisions of Government. Performs or supervises performance of other executives and field duties such as assessing and collecting revenues; issuing passports, licenses and other authorizations; supervising elections; reconciling parties in trade disputes; inspecting offices and establishments; enforcing and implementing various rules, regulations and provisions of law. Is designated according to work performed or post held, such as: COMMISSIONER, DEVELOPMENT COMMISSIONER, INCOME-TAX CUSTODIAN, EVACUEE PROPERTY DIRECTOR OF INSPECTION, CUSTOMS DIRECTOR, MARKETING

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

DIRECTOR OF TRAINING, DIRECTOR OF EMPLOYMENT EXCHANGES, REGIONAL LABOUR COMMISSIONER, COLLECTOR, CENTRAL EXCISE, SUPERINTENDENT, CUSTOMS, INCOME-TAX OFFICER, SUPERINTENDENT, CENTRAL EXCISE, PASSPORT OFFICER, SETTLEMENT OFFICER, CONCILIATION OFFICER (CENTRAL).

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government Officials

1112.0400 Administrative Official, State Government

Administrative Official, State Government serves in various capacities in State Government. Performs administrative and advisory functions which include serving as Head of State; advising ministers, on all matters of policy and administration within his sphere of responsibility; organizing and directing work of departments; taking policy decisions to the extent authorised; supervising execution and implementation of policies and decisions by field or subordinate officers. Is designated according to work performed or post held, such as: GOVERNOR; RAJYAPAL; LIEUTENANT GOVERNOR MEMBER, STATE PUBLIC SERVICE COMMISSION, MEMBER, BOARD OF REVENUE, CHIEF SECRETARY TO GOVERNMENT (STATE), SECRETARY TO GOVERNMENT (STATE), DEPUTY SECRETARY TO GOVERNMENT (STATE), UNDER SECRETARY TO GOVERNMENT (STATE), CHIEF COMMISSIONER DEVELOPMENT, COMMISSIONER OF DIVISION, DIRECTOR OF EDUCATION, DIRECTOR OF INDUSTRIES.

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government Officials

1112.0500 Executive Official, State Government

Executive Official, State Government serves in various capacities in State Government giving effect to policies and decisions of Government. Performs or supervises performance of executive and field duties which include maintenance of law and order; assessing and collecting taxes, duties, land revenues, etc.; issuing licenses; executing development schemes; reconciling parties in trade disputes; inspecting schools, factories, shops, offices and establishments; and enforcing various rules, regulations and provisions of law. Is designated according to work performed or post held, such as: COLLECTOR; DEPUTY COLLECTOR; SUB-DEPUTY COLLECTOR; DEPUTY COMMISSIONER. DISTRICT OFFICER; SUB-DIVISIONAL OFFICER; LAND RECORD OFFICER; TEHSILDAR; SUPERINTENDENT OF POLICE CIRCLE OFFICE; SALES-TAX OFFICER; SUPERINTENDENT, JAIL; JAILOR, SUPERINTENDENT OF INDUSTRIES DISTRICT INDUSTRIES OFFICER MARKETING OFFICER. RATIONING OFFICER. SUPPLY OFFICER. RENT CONTROL AND EVICTION OFFICER, REGIONAL TRANSPORT OFFICER, DISTRICT PLANNING OFFICER, CO-OPERATIVE OFFICER, CONCILIATION OFFICER (STATE), PANCHAYAT RAJ OFFICER.

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government Officials

1112.0600

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Administrative and Executive Officials, Quasi Government (Central)

Administrative and Executive Official, Quasi Government (Central) plans, organizes, co-ordinates and controls within authority delegated, activities of quasi-government organizations, establishment, etc. or one or more of its departments/branches or sections; and includes officials such as: CHAIRMAN, UNIVERSITY GRANTS COMMISSION CHAIRMAN, COAL MINES WELFARE COMMISSION, SECRETARY, INDIAN RED CROSS SOCIETY, SECRETARY, MICA MINES LABOUR WELFARE FUND ADVISORY COMMITTEE, SECRETARY, RAILWAY RATES TRIBUNAL, CONTROLLER OF EMIGRANT LABOUR, DIRECTOR-GENERAL, EMPLOYEES STATE INSURANCE CORPORATION.

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government Officials

1112.0700 Administrative & Executive Officials, Quasi Government (State)

Administrative and Executive Official, Quasi Government (State) plans, organizes, co-ordinates and controls within authority delegated, activities of quasi-government organizations, establishments, etc. or one or more of its departments/branches or sections; and includes officials such as: VICE CHANCELLOR, STATE UNIVERSITIES, DEAN, STATE AUTONOMOUS EDUCATIONAL INSTITUTES, CHAIRMAN, STATE CORPORATIONS/BOARDS, CHAIRMAN, HARYANA URBAN DEVELOPMENT

AUTHORITY, SECRETARY, GHAZIABAD DEVELOPMENT AUTHORITY.

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government Officials

1112.0800

Administrative and Executive Officials, Local Bodies

Administrative and Executive Official, Local Bodies plans, organizes, co-ordinates and controls functions of the city corporation, improvement trust, municipality, district board, cantonment board, notified area committee or other local bodies, and executes and implements or supervises execution and implementation of decisions, rules and regulations and by-laws of local bodies and also assesses and collects local taxes. Is designated according to work performed or post held, such as: COMMISSIONER, CITY CORPORATION, EXECUTIVE OFFICER, IMPROVEMENT TRUST; EXECUTIVE OFFICER, CANTONMENT, BOARD; EXECUTIVE OFFICER; MUNICIPAL BOARD, SECRETARY, DISTRICT BOARD TAX SUPERINTENDENT, OCTROI SUPERINTENDENT

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government Officials

1112.9900

Senior Government Officials, Other

Administrative and Executive Officials, Government and Local Bodies, Other
Include all other administrative and executive officials of government, quasi-

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

government or local body, engaged in taking policy decisions and their implementation, general management and supervision of its one or more branches, sections and departments, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1112
Title Senior Government Officials

Family 1113

Traditional Chiefs and Heads of Villages

Traditional Chiefs and Heads of Villages perform a variety of legislative, administrative and ceremonial tasks and duties, determined by ancient traditions, as well as by the division of rights and responsibilities between village chiefs and the local, regional and national authorities.

Family 1114

Senior Officials of Special-interest Organizations

Senior Officials of Special-interest Organizations determine, formulate and direct the implementation of policies of special-interest organizations, such as political-party organizations, trade unions, employers' organizations, trade and industry associations, humanitarian or charity organizations, or sports associations, and represent their organizations and act on their behalf.

1114.0100

Political Worker

Political Worker takes part in various activities of the political party to which he belongs. Contacts people for propagating ideology of his party and to enquire about their difficulties. Acts as link between people and legislators. Organizes activities of the party in his area. May act as President or Secretary of his party. May also function as President of Panchayat or Panchayat Samiti of his area.

ISCO 08 Unit Group Details:

Code 1114
Title Senior Officials of Special-interest Organizations

1114.0200

Senior Officials of Employers, Workers and Other Economic Interest Organizations

Senior Officials of Employers', workers' and other economic-interest organizations determine and formulate policies, rules and regulations of their respective organizations, direct their application, represents these organizations and act on their behalf.

ISCO 08 Unit Group Details:

Code 1114
Title Senior Officials of Special-interest Organizations

1114.0300

Director, Disaster Management Services

Director, Disaster Management Services directs and co-ordinates regional programme activities of various agency to provide specialized human services, such as water safety programmes, disaster relief, and emergency transportation: Consults with co-operating agencies, such

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

as police, firefighters and emergency ambulance services to co-ordinate efforts and define areas of jurisdiction. Participates in programme activities to serve clients of agency. Prepares budgets to control costs and to allocate funds in accordance with provisions and agency charter. May instruct agency staff and volunteers in skills required to provide services. May forward requisitions and arrange for maintenance of equipment, such as two way radios and agency vehicles. May co-ordinate services to disaster victims and safety programmes, such as water safety and emergency first aid, and also co-ordinates transportation of agency clients, blood and medical supplies and equipment.

ISCO 08 Unit Group Details:

Code 1114

Title Senior Officials of Special-interest Organizations

1114.9900

Senior Officials of Special-interest Organizations, Other

Senior Officials of Humanitarian and other Special-interest Organizations, Other include senior officials of humanitarian and other special-interest organizations who determine and formulate policies, rules and regulations of humanitarian organizations, sports associations or other special-interest organizations. Directs their application, represents these organizations and acts on their behalf.

ISCO 08 Unit Group Details:

Code 1114

Title Senior Officials of Special-interest Organizations

Group 112

Managing Directors and Chief Executives

Managing Directors and Chief Executives formulate and review the policies, plan, direct, co-ordinate and evaluate the overall activities of enterprises or organizations (except special interest organizations and government departments) with the support of other managers, usually within guidelines established by a Board of Directors or a governing body to whom they are answerable for the operations undertaken and their result.

Occupations in this Group are classified into the following Families:

1120 Managing Directors and Chief Executives

Family 1120 Managing Directors and Chief Executives

Managing Directors and Chief Executives formulate and review the policies and plan, direct co-ordinate and evaluate the overall activities of enterprises or organizations (except special interest organizations and government departments). They work with the support of other managers, usually within guidelines established by a Board of Directors or a governing body to whom they are answerable for the operations undertaken and their result.

1120.0100 Working Proprietor, Electricity

Working Proprietor, Electricity plans, organizes and controls in broad outline, within authority delegated, activities of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

private or public organizations or establishments or one or more of its branches, departments, etc. engaged in generation, transmission and distribution of electricity to domestic and industrial consumers. Is designated according to work performed or powers exercised.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.0200

Working Proprietor, Gas

Working Proprietor, Gas plans, organizes and controls, within authority delegated activities of public or private organizations or enterprises, or one or more of its departments, sections or branches, engaged in manufacture of gas, distribution and supply of gas to consumers and production and supply of steam for heat and power. Is designated according to work performed or powers exercised.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.0300

Working Proprietor, Water Supply

Working Proprietor, Water Supply plans, organizes and co-ordinates, within authority delegated, activities of public or private organizations engaged in storage, filtration, purification and supply of water.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.0400

Director, Electricity

Director, Electricity heads the organization and is supported by more than one manager. Determines, plans, organizes and controls in broad outline, within authority delegated, activities of private or public organizations or establishments or one or more of its branches, departments, etc. engaged in generation, transmission and distribution of electricity to domestic and industrial consumers. Is designated according to work performed or powers exercised.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.0500

Director, Gas

Director, Gas heads the organization and is supported by more than one manager. Determines, plans, organizes and controls, within authority delegated activities of public or private organizations or enterprises, or one or more of its departments, sections or branches, engaged in manufacture of gas, distribution and supply of gas to consumers and production and supply of steam for heat and power. Is designated according to work performed or powers exercised.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

1120.0600

Director, Water Supply

Director, Water Supply heads the organization and is supported by more than one manager. Determines, plans, organizes and co-ordinates, within authority delegated, activities of public or private organizations engaged in storage, filtration, purification and supply of water.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.0700

Director, Bank

Director, Bank sets broad policies and plans and supervises in general way, within authority delegated, efficient operation of private or public bank or major segment of it. May be designated according to authority delegated or work performed such as: GOVERNOR (BANK), CHAIRMAN (BANK), MANAGING DIRECTOR (BANK).

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.0800

Director, Insurance

Director, Insurance sets broad policies, plans and co-ordinates within authority delegated, activities of private or public organization, or major segment of it, dealing in life, fire, accident, marine and other general insurance business. Is designated according to work performed or authority exercised, such as:

CHAIRMAN, LIFE INSURANCE CORPORATION, MANAGING DIRECTOR, (INSURANCE), DIRECTOR, INVESTMENTS (INSURANCE).

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.0900

Working Proprietor, Mines/Proprietor, Mines

Working Proprietor, Mines plans, organizes, directs and controls the enterprise wholly or partially and is engaged in economic activities related to extraction of coal, ore, mica, precious stones and other minerals from underground mines or open pits, and treatment of minerals for use by consumers. Is designated according to mineral extracted such as: WORKING PROPRIETOR, GOLD MINE, WORKING PROPRIETOR, DIAMOND MINE, WORKING PROPRIETOR, COAL MINE, WORKING PROPRIETOR, IRON MINE, WORKING PROPRIETOR, MANGANESE, MINE WORKING PROPRIETOR, COPPER MINE WORKING PROPRIETOR, MICA MINE.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.1000

Working Proprietor, Quarry/Proprietor, Quarry

Working Proprietor, Quarry plans, organizes, directs and controls the enterprise, wholly or partially and is engaged in economic activities related to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

extraction of stone, slate, sand and clay from earth. Is designated according to the material quarried such as:

WORKING PROPRIETOR, STONE QUARRY,
WORKING PROPRIETOR, SLATE QUARRY.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.1100

Working Proprietor, Well Drilling/Proprietor, Well Drilling

Working Proprietor, Well Drilling plans, organizes, directs and controls the enterprise wholly or partially and is engaged in economic activities related to drilling and sinking of deep wells, and operating wells for extraction of crude petroleum, natural gas, water and other liquids and semi-liquids from deep below earth's surface.

Is designated according to the type of well such as:

WORKING PROPRIETOR, OIL WELL.

WORKING PROPRIETOR, GAS WELL.

WORKING PROPRIETOR, WATER WELL.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.1200

Working Proprietor, Construction/Proprietor, Construction

Working Proprietor, Construction formulates policies, plans, organizes and controls activities of the organization or enterprise, wholly or partially., Is engaged in construction, maintenance and repair

of buildings, roads, bridges, railway tracks, aerodromes, canals, dams, etc. Is designated as:

CONTRACTOR, BUILDING CONSTRUCTION.
CONTRACTOR, CANAL CONSTRUCTION, etc.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.1300

Director, Construction

Director, Construction plans, co-ordinates and controls, within powers delegated, activities of public or private organizations or one or more of its branches or departments engaged in construction, maintenance and repairs of buildings, roads, bridges, railway tracks, aerodromes, canals, dams, etc. Is designated according to work performed or authority exercised such as: MANAGING DIRECTOR(CONSTRUCTION). PROJECT DIRECTOR(CONSTRUCTION).

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.1400

Director, Mines

Director, Mine plans, directs and co-ordinates, within powers delegated activities of public or private organizations engaged in extracting coal, ores, mica, precious stones and other solid minerals from underground mines or open pits and in treating and dressing ore or minerals at mine site. Is designated according to work performed or powers delegated such as:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

MANAGING DIRECTOR (MINES).
DIRECTOR, SALES (MINES).

Title Managing Directors and Chief Executives

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.1700

**Working Proprietor,
Manufacturing/Proprietor,
Manufacturing**

1120.1500 Director, Quarry

Director, Quarry plans, directs and co-ordinates, within powers delegated, activities of public or private organization engaged in excavating stone, slate, clay and sand from earth. Is designated according to work performed or powers exercised such as: MANAGING DIRECTOR, QUARRY, DIRECTOR, STONE QUARRY, DIRECTOR, MARBLE QUARRY, DIRECTOR, LIMESTONE QUARRY.

Working Proprietor, Manufacturing plans organizes, co-ordinates and controls activities of enterprises wholly or partially and is engaged in producing, maintaining or repairing capital and consumer goods excluding crops, minerals, electricity and natural gas. Is designated according to the industry owned and controlled, such as: WORKING PROPRIETOR, TEXTILE MILLS, WORKING PROPRIETOR, ENGINEERING WORKSHOP, WORKING PROPRIETOR, SHOE FACTORY, WORKING PROPRIETOR, GLASS FACTORY, WORKING PROPRIETOR, STEEL ROLLING MILLS, WORKING PROPRIETOR PRINTING PRESS, WORKING PROPRIETOR, TANNERY, WORKING PROPRIETOR, BAKERY.

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.1600 Director, Well Drilling

Director, Well Drilling plans, directs and co-ordinates, within powers delegated, activities of public or private organization engaged in drilling and sinking deep wells and operating wells for extraction of mineral oil, natural gas, etc. Is designated according to work performed or economic activity directed, such as: MANAGING DIRECTOR, OIL WELL, MANAGING DIRECTOR, GAS WELL, DIRECTOR, OIL WELL, DIRECTOR, GAS WELL.

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.1800 Director Manufacturing

Director, Manufacturing plans, organizes, co-ordinates and controls within authority delegated, activities of private or public organizations, or one or more of its departments or branches, engaged in producing, maintaining or repairing capital or consumer goods, excluding crops, minerals, electricity and natural gas. Is designated according to work performed, authority exercised or economic activity

ISCO 08 Unit Group Details:

Code 1120

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

directed such as: MANAGING DIRECTOR, (MANUFACTURING). DIRECTOR, PRODUCTION(MANUFACTURING). DIRECTOR, WORKS(MANUFACTURING). DIRECTOR, STEEL PLANT. DIRECTOR, TANNERY. DIRECTOR, BAKERY. DIRECTOR, SADDLERY.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.1900

Working Proprietor, Wholesale Trade/Proprietor, Wholesale Trade

Working Proprietor, Wholesale Trade purchases goods in bulk and sells them to retailers or other large consumers for profit. Lays down and controls business policies to ensure profits, keeping in view price line, market trend and demand and supply position. Appoints Directors, Managers and Representatives and delegates financial and operational powers to them, if necessary. Runs wholesale trade on monopoly or zonal basis in specific commodities either by importing them from outside or manufacturing them in his own or other concern. May require a licence or permit from public authorities for wholesale trade. May undertake export business.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2000

Working Proprietor, Retail Trade/Proprietor, Retail Trade

Working Proprietor, Retail Trade conducts business in retail trade on own account, buying merchandise from manufacturers or wholesalers according to public demand and sells them to customers for profit. Lays down business policies regarding margin of profit and compliance with prescribed rules and regulations. May appoint Directors and Managers and may delegate financial and operational powers to them. May obtain licence or permit from public authorities for retail trade.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2100

Director, Wholesale Trade

Director, Wholesale Trade lays down policies within powers ,delegated, and plans, controls and directs operation of private or public enterprise or segment of its activities engaged in buying and selling of goods in wholesale. Is designated according to work performed, such as: MANAGING DIRECTOR (Wholesale Trade). CHAIRMAN, BOARD OF DIRECTORS (Wholesale Trade).

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2200

Director, Retail Trade

Director, Retail Trade lays down policies within powers delegated and plans, controls and directs operation of private or public enterprises or a segment of its

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

activities, engaged in buying and selling goods in retail. Is designated according to work performed such as: MANAGING DIRECTOR (Retail Trade), CHAIRMAN, BOARD OF DIRECTORS (Retail Trade) DIRECTOR-IN-CHARGE (Retail Trade).

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2300

Working Proprietor, Transport

Working Proprietor, Transport plans, organizes, co-ordinates and controls activities of the organization or establishment wholly or partly owned by him, is engaged in transporting passengers and freight by buses, trucks, taxis, rickshaws, tongas, and other means of road transport; by boats, launches, ships, etc. plying on inland or coastal waters or on high seas; by aircraft for providing transport and other services, incidental to transport.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2400

Director, Transport

Director, Transport plans organizes, co-ordinates and controls, within authority delegated, activities of private or public organizations or one or more of its departments, branches or sections, engaged in transporting passengers and freight by railways, tramways, buses, trucks, taxis, rickshaws, animal transport and other means of road transport; by

boats, launches and ships plying on rivers, coastal waters, and high seas; by aircrafts; and operating services incidental to transport. Is designated according to work performed, powers exercised of service controlled, such as: MANAGING DIRECTOR (TRANSPORT).

DIRECTOR, TRAFFIC GENERAL, MANAGER, RAILWAYS, DIRECTOR, ROADWAYS, CHIEF OPERATING

SUPERINTENDENT(RAILWAYS). CHIEF COMMERCIAL

SUPERINTENDENT(RAILWAYS).

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2500

Director, Communication

Director, Communication plans, organizes, co-ordinates and controls, within authority delegated, activities of public or private organization or one or more of its departments or branches, engaged in providing postal, telephone, telegraph, wireless and other communication services. Is designated according to powers exercised or type of communication service directed such as: DIRECTOR, POSTAL SERVICES, POST MASTER GENERAL. DIRECTOR, OVERSEAS COMMUNICATION SERVICES. DIRECTOR OF TELEPHONES, DIRECTOR OF RAILWAY MAIL SERVICE.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2600

Director, Airport

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Director, Airport plans, directs, and co-ordinates, through subordinate personnel, activities concerned with construction and maintenance of airport facilities and operation of airport in accordance with governmental agencies or commission policies and regulations. Consults with commission members, governmental officials, or representatives of airlines to discuss and plan matters, such as design and development of airport facilities, formulation of operating rules, regulations, and procedures, and aircraft landing, taxiing, and take-off patterns for various types of aircrafts. Negotiates with representatives of airlines, utility companies, or individuals for acquisition of property for development of airports, lease of airport buildings and facilities, or use of rights-of-way over private property. Formulates procedures for use in event of aircraft accidents, fires, or other emergencies. Inspects airport facilities, such as runways, buildings, beacons and lighting, and automotive or construction equipment, or reviews inspection reports, to determine repairs, replacement, or improvements required. Co-ordinates activities of personnel involved in repair and maintenance of airport facilities, buildings, and equipment to minimize interruption of airport operations and improve efficiency. Directs personnel in investigating violations of aerial or ground traffic regulations, reviews investigation reports, and initiates actions to be taken against violators. Directs studies on noise abatement resulting from complaints of excessive noise from low flying aircraft or other operations. Reviews reports of expenditures for previous fiscal year, proposes improvements to facilitate, estimated increase in volume of traffic, in order to prepare budget estimates for upcoming fiscal year. Represents airport

before civic or other organizational groups, courts, boards, and commissions.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2700

Working Proprietor, Storage and Warehousing

Working Proprietor, Storage and Warehousing plans and organizes storage warehousing and freight handling services to public and private organizations by land, sea or air and arranges allied transport and communication facilities to parties concerned. Obtains license from Government where necessary, and lays down business policies. Appoints Directors, Agents and Managers and delegates required financial and other powers to them to ensure smooth running of business, desired margin of profit and compliance with business terms and Government rules and regulations.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.2800

Director, Storage and Warehousing

Director, Storage and Warehousing plans, organizes, co-ordinates and controls, within authority delegated, activities of public or private organizations, or one or more of its branches, engaged in providing storage and warehouse facilities on prescribed terms and conditions to Government and private parties. May

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

arrange facilities of transport and communication as required. May specialize in any particular type of item or commodity such as machinery and engineering items, explosives, perishable goods, etc. and be designated accordingly.

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.2900

Working Proprietor, Lodging and Catering Services

Working Proprietor, Lodging and Catering Services plans, organizes, co-ordinates and controls operations of the organization or establishment wholly or partly owned by him and is engaged in serving food, drinks and beverages and providing lodging and camping facilities to public. Included are: WORKING PROPRIETOR, HOTEL. WORKING PROPRIETOR, RESTAURANT. WORKING PROPRIETOR, CAFE WORKING PROPRIETOR, COFFEE HOUSE.

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.3000

Director, Lodging and Catering Services/Director Food and Beverage Service

Director, Lodging and Catering Services plans, organizes and controls, within authority delegated, activities of public or private organizations or establishments or one or more of its branches, engaged in

preparing and serving food, drinks and beverages and providing lodging, and camping facilities to public. Included are: DIRECTOR, HOTEL. DIRECTOR, RESTAURANT. DIRECTOR, COFFEE HOUSE.

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.3100

Executive Chef

Executive Chef co-ordinates activities and directs indoctrination and training of CHEFS, COOKS; and other kitchen workers engaged in preparing and cooking food in hotels or restaurants to ensure an efficient and profitable food service. Plans or participates in planning menus and utilisation of food surpluses and leftovers, taking into account probable number of guests, marketing conditions, popularity of various dishes, and decency of menu. Estimates food consumption and purchase or requisition of foodstuff and kitchen supplies. Reviews menus, analyses recipes, determines food, labour, and overhead costs, and assigns price to menu items. Directs food apportionment policy to control costs. Supervises cooking and other kitchen personnel and co-ordinates their assignments to ensure economical and timely food production. Observes methods of food preparation and cooking, size of portions, and garnishing of food to ensure food is prepared in prescribed manner. Tests cooked food by tasting and smelling them. Devises special dishes and develops recipes. Hires and discharges employees. Familiarizes newly hired CHEFS and COOKS with practices of the restaurant kitchen and oversees training of COOK APPRENTICES. Maintains time

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and payroll records. Establishes and enforces nutrition and sanitation standards for the restaurant. May supervise or co-operate with STEWARD/STEWARDESS in matters pertaining to kitchen, pantry, and storeroom.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.3200

Working Proprietor, Recreation and Entertainment

Working Proprietor, Recreation and Entertainment plans, organizes, coordinates and controls operations of the organization or establishment wholly or partly owned by him and is engaged in producing, distributing and exhibiting motion pictures; producing and presenting stage and circus shows; operating carnivals and amusement parks; organizing games, sports, hunting, fishing, excursion, competitions, etc., and providing other entertainment and recreation services. Included are: WORKING PROPRIETOR, FILM STUDIO. PRODUCER, MOTION PICTURES, FILM DISTRIBUTOR, WORKING PROPRIETOR, THEATRE, WORKING PROPRIETOR, CARNIVAL, WORKING PROPRIETOR, AMUSEMENT PARK. WORKING PROPRIETOR, GYMNASIUM, WORKING PROPRIETOR, SWIMMING POOL, WORKING PROPRIETOR, DANCE HALL, WORKING PROPRIETOR, CINEMA, WORKING PROPRIETOR, CIRCUS.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.3300

Director, Recreation and Entertainment

Director, Recreation and Entertainment plans, organizes and controls, within authority delegated, activities of public or private organizations or establishments or one or more of its branches or departments, engaged in producing, distributing and exhibiting motion pictures; producing and presenting stage and circus shows; organizing and presenting radio and television programmes; operating carnivals and amusement parks; organizing games, sports, hunting, fishing, excursion, competitions, etc., and providing other entertainment and recreation services. Included are;

DIRECTOR, MOTION PICTURE. DIRECTOR, STAGE. DIRECTOR, STUDIO. DIRECTOR, STADIUM. DIRECTOR, RADIO STATION.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.3400

Station Director, Radio/TV

Station Director, Radio/TV directs and coordinates activities of radio or television station, or of cable television franchise. Supervises directly, or through subordinates, personnel engaged in departments, such as sales, programme or engineering.

Observes activities to ensure compliance with government regulations. Discusses plans with the marketing personnel to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

promote sales of programmes and time periods to advertisers and their agencies. Confers with owners or company senior management to discuss station policies and administrative procedures. May prepare operational budget and monitor expenses for station or franchise. May negotiate with motion picture companies for purchase of independent film programmes.

May negotiate cable franchise contract with local issuing authority. May develop strategies to promote sales of new cable television service or upgraded service to customers within the franchise area. May contact prospective buyers of station time to promote sale of station services. May manage stations engaged in transmitting broadcasts to foreign countries and be known as Director, International Broadcasting (radio-television broadcast). May perform different duties and responsibilities, according to station size and network affiliation.

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.3401

Account Director (Advertising Agency)

Account Director (Advertising Agency) is responsible for managing the clients' advertisement portfolio.

Qualification Pack Details:

QP NOS Reference	MES/Q0207
QP NOS Name	Account Director (Advertising Agency)
NSQF Level	8

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.3402

Sales Director (Media Org)

Sales Director (Media Org) is responsible for leading the sales efforts of a media and entertainment company.

Qualification Pack Details:

QP NOS Reference	MES/Q0201
QP NOS Name	Sales Director (Media Org)
NSQF Level	8

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.3500

Working Proprietor, Other Services

Working Proprietor, Other Services plans, organizes, co-ordinates and controls activities of the organization, wholly or partly owned by him, and is engaged in running and managing educational institutions; rendering medical and other health services, sanitation, washing and cleaning households, garments, etc. and providing other services.

ISCO 08 Unit Group Details:

Code 1120
Title Managing Directors and Chief Executives

1120.3600

Director, Other Services

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Director, Other Services plans, organizes and controls, within authority delegated, activities of public or private organizations or establishments, or one or more of its departments or branches, engaged in running educational institutions; rendering medical sanitation and other health services. Organizing and providing religious services, promoting welfare of workers or community, giving charity assistance or aid to infirm or orphans. Organizing and managing trade and labour organizations and other civic and social associations, washing and cleaning garments etc., undertaking and cremating; and performing other services. Included are: DIRECTOR OF EDUCATIONAL INSTITUTIONS. DIRECTOR OF CHARITABLE INSTITUTIONS, DIRECTOR, ORPHANAGE DIRECTOR, Y.M.C.A, DIRECTOR, Y.W.C.A.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.3700

Director, Museum/Zoo

Director, Museum/Zoo administers affairs of museum, zoo, or similar establishments. Confers with the institution's board of Directors to formulate policies and plan overall operations. Directs acquisition, education, research, public service, and developmental activities of the institution, consulting with curatorial, administrative, and maintenance staff members to implement policies and initiate programmes. Works with members of curatorial and administrative staffs to acquire additions to collections. Confers with administrative staff members to determine budget requirements, plans fund raising drives, prepares applications

for grants from government agencies or private foundations, and solicits financial support for institutions. Establishes and maintains contact with administrators of other institutions to exchange information concerning operations and plan, co-ordinate, or consolidate community service and education programmes. Represents the institution at professional and civic social events, conventions, and other gatherings to strengthen relationships with cultural and civic leaders, present lectures or participate in seminars, or explain institution's functions and seek financial support for projects. Reviews materials prepared by staff members, such as articles for journals, requests for grants and reports on institutional programmes, and approves materials or suggests changes. Instructs classes in institution's education programme or as guest lecturer at the university. Writes articles for technical journals or other publications.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.3800

Chief Librarian

Chief Librarian plans and administers programme of library services: Submits recommendations on library policies and services to the governing body, such as board of Directors or board of Trustees, and implements policy decisions. Analyses, selects, and executes recommendations of personnel, such as department chiefs or branch supervisors. Co-ordinates activities of the branch or departmental libraries. Analyses and co-ordinates departmental budget estimates and controls expenditures to administer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

approved budget. Reviews and evaluates orders for books and audio-visual materials. Examines trade publications and materials, interviews publishers' representatives, and consults with others to select materials. Administers personnel regulations, interviews and appoints job applicants and promotes and discharges employees. Plans and conducts staff meetings and participates in community and professional meetings to discuss and act on library problems. Delivers book reviews and lectures to publicise library activities and services. Provides library public relation services. May examine and select materials to be discarded, repaired, or replaced.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.3900

Principal, College

Principal College directs and co-ordinates educational, administrative, and counselling activities of college. Develops and evaluates educational programmes to ensure conformance to state and university standards. Develops and co-ordinates educational programmes through meetings with staff, review of teachers' activities, and issuance of directives.

Confers with teachers, students, and parents concerning educational and behavioural problems in the college. Establishes and maintains relationships with colleges, community organizations, and other colleges to co-ordinate educational, sports and cultural services. Forwards requisitions and allocates supplies, equipment, and instructional material as needed. Directs preparation of

class schedules, cumulative records, and attendance reports. Observes and evaluates teacher's performance. Interviews and hires teachers. Walks around the college building and property to monitor safety and security. Plans and monitors college budget and financial matters. May plan and direct building maintenance. May develop and administer educational programmes for students with mental or physical handicaps.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

1120.9900

Managing Directors and Chief Executives, Others

Working Proprietors and Directors, Other Workers plan, organize, control, co-ordinate and supervise activities of public or private organizations, wholly or partially owned by them or on behalf of others, engaged in generating, transmitting and distributing electricity; producing and supplying gas, purifying and supplying water and providing related services not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1120

Title Managing Directors and Chief Executives

Sub Division 12

Administrative and Commercial Managers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Administrative and Commercial Managers plan, organize, direct, control and co-ordinate the financial, administrative, human resource, policy, planning, research and development, advertising, public relations, and sales and marketing activities of enterprises and organizations, or of enterprises that provide such services to other enterprises and organizations.

Tasks performed by workers in this sub-major group usually include: formulating and administering policy advice, strategic and financial planning; establishing and directing operational and administrative procedures; implementing, monitoring and evaluating strategies and policies; providing advice to Senior Managers; directing the development of initiatives for new products, marketing, public relations and advertising campaigns; determining and directing sales activities, product mix, customer service standards; setting prices and credit arrangements; ensuring compliance with relevant legislation, regulations and standards; controlling selection, training and performance of staff; preparing budgets and overseeing financial operations; consulting with the chief executive and with managers of other departments or sections; controlling expenditure and ensuring the efficient use of resources; representing the enterprise or organization in negotiations, and at conventions, seminars, public hearings and forums.

Occupations in this Sub Division are classified into the following Groups:

121 Business Services and Administration Managers
122 Sales, Marketing and Development Managers

Group 121

Business Services and Administration Managers

Business Services and Administration Managers plan, organize, direct, control and co-ordinate the financial, administrative, human resource, policy, planning, activities of organizations, or of enterprises that provide such services to other enterprises and organizations.

Occupations in this Group are classified into the following Families:

1211 Finance Managers
1212 Human Resource Managers
1213 Policy and Planning Managers
1219 Business Services and Administration Managers Not Elsewhere Classified

Family 1211

Finance Managers

Finance Managers plan, direct and co-ordinate the financial operations of an enterprise or organization, in consultation with Senior Managers and with Managers of other departments or sections.

1211.0100

General Manager, Bank

General Manager, Bank organizes, controls and supervises, within authority delegated, activities of a private or public bank or one or more of its departments or branches. Is designated according to authority delegated or work performed such as: AGENT (BANK) SUB-AGENT (BANK)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 1211
Title Finance Managers

1211.0200

General Manager, Insurance

General Manager, Insurance organizes, controls and supervises, within authority delegated, activities of a private or public organization or one or more of its departments or branches, engaged in life, fire, accident, marine and other general insurance business.

ISCO 08 Unit Group Details:

Code 1211
Title Finance Managers

1211.0300

Purser, Ship

Purser, Ship deals with correspondence and accounts relating to a ship. Keeps charge of all accounts and pay of the ship's personnel. Checks reports of Clerks and pays of crew and maintains their pay rolls. Prepares portage bills and ship's 30 articles (contracts). Collects mail and distributes to passengers, officers and crew. May supervise stowing or removal of luggage from holds in conjunction with Chief Officer, Ship or Officer on Watch. May collect valuables of passengers for safe custody in passenger ships. May arrange parties and other entertainment for passengers and generally acts as a host.

ISCO 08 Unit Group Details:

Code 1211
Title Finance Managers

1211.9900

Finance and Administration Managers, Others

Finance and Administration Department Managers, Others include Managers engaged in finance and administration and related services, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1211
Title Finance Managers

Family 1212

Human Resource Managers

Human Resource Managers, plan, direct and co-ordinate policies concerning the personnel, industrial relations and occupational health and safety activities of an enterprise or organization, or of enterprises that provide human resource services to other enterprises and organizations.

1212.0100

Personnel Manager

Personnel Manager; Personnel Officer; Industrial Relation Officer formulates and executes policies relating to recruitment, training, review of terms and conditions of employment of personnel, implementation of statutory and other welfare schemes and effective utilization and discharge of personnel employed in any undertaking. Advises and assists in development of managerial power, prescribes recruitment methods, organizes training schemes, supervises administration of welfare programmes, distributes personnel for their effective utilization in organization and resolves problems of remuneration, discipline and industrial disputes in accordance with established laws. Investigates in to specific problems of indiscipline and inefficiency

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

to evolve and suggest ameliorative measures to management. Establishes channels of consultation between labour and employers to minimize misunderstanding, promote cordial relations and consults with labour representatives on behalf of employers to remove causes of petty grievances. May specialize in a particular function, such as employment and placement, training, welfare, or industrial relations and be designated accordingly.

ISCO 08 Unit Group Details:

Code	1212
Title	Human Resource Managers

1212.9900

Personnel and Industrial Relations Managers, Other

Personnel and Industrial Relation Managers, Other include managers engaged in personnel and industrial relations and related services, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	1212
Title	Human Resource Managers

Family 1213

Policy and Planning Managers

Policy and Planning Managers plan, organize, direct and co-ordinate policy advice and strategic planning activities within government or for non-government organizations and private sector agencies, or manage the activities of enterprises that provide policy and strategic planning services.

1213.0100

Manager, Automotive Service

Manager, Automotive Services directs and co-ordinates activities concerned with acquisition of automotive equipment and operation and maintenance of automotive fleet repair and storage facilities for public utility, transportation, commercial, or industrial companies. Co-ordinates activities of staff personnel conducting research and testing programme on automotive equipment considered for acquisition for such factors as operational performance, operational and maintenance costs, safety of operation, and compliance with environmental laws and regulations. Reviews and submits staff proposals for modifications to vendor or manufacturer. Directs procurement of all types of company-owned-and-operated automotive equipment, materials, supplies, and parts required to maintain automotive equipment, garages, and storage facilities. Co-ordinates automotive repair and maintenance services to obtain maximum utilisation of automotive equipment and prevent operational delays in other departments.

ISCO 08 Unit Group Details:

Code	1213
Title	Policy and Planning Managers

1213.0101

Quality Assurance Standards In Charge

Quality Assurance Standards In Charge is responsible for selecting, maintaining and monitoring the measuring systems to be used for the inspection of manufactured products in order to assure quality products to customers.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	ASC/Q6305
QP NOS Name	Quality Assurance Standards In Charge-Level 5
NSQF Level	5

ISCO 08 Unit Group Details:

Code	1213
Title	Policy and Planning Managers

1213.0102

Manager-Customer Quality

Manager-Customer Quality is responsible for the quality inspection, performance and improvement of final products delivered to customers.

customer service activities, such as pumping petroleum fuel, checking engine oil, tires, battery, and washing windows and windshield. Notifies customers when oil is dirty or low, tires are worn, hoses or fan-belts are defective, or evidence indicates battery defects. Promotes sale of products and services, such as oil change and lubrication, tires, battery, or other automotive accessories. Reconciles cash with petrol pump meter readings, sales slips, and credit card charges. Orders, receives, and inventories petroleum fuel, oil, automotive accessories and parts. May perform automotive maintenance and repair work, such as adjusting or relining brakes, motor tune-ups, valve grinding, and changing and repairing tires.

Qualification Pack Details:

QP NOS Reference	ASC/Q6304
QP NOS Name	Manager-Customer Quality Level 6
NSQF Level	6

ISCO 08 Unit Group Details:

Code	1213
Title	Policy and Planning Managers

1213.0200

Manager, Automotive Service Station

Manager, Automotive Service Station manages automobile service stations. Plans, develops, and implements policies for operating station, such as hours of operation, workers required and duties, scope of operations, and prices for products and services. Hires and trains workers, prepares work schedules, and assigns workers to specific duties, such as customer service, automobile maintenance, or repair work. Directs, coordinates, and participates in performing

ISCO 08 Unit Group Details:

Code	1213
Title	Policy and Planning Managers

1213.0201

Area Service Manager

Area Service Manager is responsible for supervising and handling overall services network of the assigned area. The individual generally monitors services network at dealerships and reviews and supervises processes.

Qualification Pack Details:

QP NOS Reference	ASC/Q0603
QP NOS Name	Area Service Manager
NSQF Level	6

ISCO 08 Unit Group Details:

Code	1213
Title	Policy and Planning Managers

1213.0202

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Territory Service Manager

Territory Service Manager is responsible for managing the service function in the assigned territory. The individual supervises service functions at the dealership network of the assigned territory and helps in increasing profitability.

Qualification Pack Details:

QP NOS Reference	ASC/Q0602
QP NOS Name	Territory Service Manager
NSQF Level	5

ISCO 08 Unit Group Details:

Code 1213
Title Policy and Planning Managers

1213.9900

Managers, Other Services

Managers, Other Services include Department Managers not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1213
Title Policy and Planning Managers

Family 1219

Business Services and Administration Managers Not Elsewhere Classified

This unit group covers Business Services and Administration Managers not classified elsewhere in group 121, Business services and Administration Managers. For instance, the group includes occupations such as Facilities Manager, Cleaning Services Manager, Administrative Services Manager.

1219.0100

Manager, Import and Export

Manager, Import and Export co-ordinates activities of international traffic division of import-export agencies and negotiates settlements between foreign and domestic shippers: Plans and directs flow of air and surface traffic moving to overseas destinations. Supervises workers engaged in receiving and shipping freight, documentation, way billing, assessing charges, and collecting fees for shipments. Negotiates with domestic customers, as intermediary for foreign customers, to resolve problems and arrives at mutual agreements. Negotiates with foreign shipping interests to contract for reciprocal freight-handling agreements. May examine invoices and shipping manifests for conformity to tariff and customs regulations. May contact customs officials to effect release of incoming freight and resolve customs delays. May prepare reports of transactions to facilitate billing of shippers and foreign carriers.

ISCO 08 Unit Group Details:

Code 1219
Title Business Services and Administration Managers Not Elsewhere Classified

1219.0101

Export Manager

Export Manager is responsible for leading and managing the entire process of international shipment of goods. Their work includes analysis of the foreign trade logistics, management and supervision of all shipment related documents and ensuring shipping compliance.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference AMH/Q1603
QP NOS Name Export Manager
NSQF Level 5

Title Business Services and Administration Managers Not Elsewhere Classified

Group 122

Sales, Marketing and Development Managers

Sales, Marketing and Development Managers plan, organize, direct, control and co-ordinate the advertising, public relations, research and development, and sales and marketing activities of enterprises and organizations, or of enterprises that provide such services to other enterprises and organizations.

Occupations in this Group are classified into the following Families:

1221 Sales and Marketing Managers
1222 Advertising and Public Relation Managers
1223 Research and Development Managers

Family 1221

Sales and Marketing Managers

Sales and Marketing Managers plan, direct and co-ordinate the sales and marketing activities of an enterprise or organization, or of enterprises that provide sales and marketing services to other enterprises and organizations.

1221.0100

Sales Manager (Wholesale Trade)

Sales Manager (Wholesale Trade) organizes and manages wholesale trade organizations, or one or more if its branches or departments engaged in buying goods and selling them for profits

ISCO 08 Unit Group Details:

Code 1219

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

to retailers or industrial and commercial consumers.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

Title Sales and Marketing Managers

1221.0401

Territory	Sales	Manager
(Broadband)		

Territory Sales Manager (Broadband) manages and supervises DSAs activities and achievement of sales targets, in the assigned territory. Enhances Average Revenue Per User (ARPU) and customer base, channel development and process compliance.

ISCO 08 Unit Group Details:

Code 1221

Title Sales and Marketing Managers

1221.0200

Sales Manager (Retail Trade)

Sales Manager (Retail Trade) organizes and manages retail trade organization, or one or more of its branches or departments, engaged in buying goods and merchandise and selling them for profit to customers.

ISCO 08 Unit Group Details:

Code 1221

Title Sales and Marketing Managers

1221.0301

Home Delivery Manager

Home Delivery Manager is responsible for delivering vehicles to the customers and explaining all service related activities to the customer, while delivering the vehicle. They also ensure proper pickup and delivery of vehicles as per the customers' service schedule.

Qualification Pack Details:

QP NOS Reference ASC/Q1006

QP NOS Name Home Delivery Manager

NSQF Level 6

Title Sales and Marketing Managers

Territory	Sales	Manager
(Broadband)		

Territory Sales Manager (Broadband) manages and supervises DSAs activities and achievement of sales targets, in the assigned territory. Enhances Average Revenue Per User (ARPU) and customer base, channel development and process compliance.

Qualification Pack Details:

QP NOS Reference TEL/Q0204

QP NOS Name	Territory	Sales
	Manager	
	(Broadband)	

NSQF Level 7

ISCO 08 Unit Group Details:

Code 1221

Title Sales and Marketing Managers

1221.0501

Territory Sales Manager (Prepaid)

Territory Sales Manager (Prepaid) is responsible for distribution expansion and co-ordination with urban distributors, i.e. multi brand distributors, to achieve sales targets in the assigned territory achieving revenue targets people development channel management retailer education range selling increasing customer base and process compliance. (Rural Distributor)-Individual at this job is responsible for similar activities but with rural i.e. company specific distributors

Qualification Pack Details:

QP NOS Reference TEL/Q0203

QP NOS Name	Territory	Sales
	Manager	(Prepaid)

ISCO 08 Unit Group Details:

Code 1221

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 7

ISCO 08 Unit Group Details:

Code 1221

Title Sales and Marketing Managers

1221.0601

Sales Co-ordinator (Media Org)

Sales Co-ordinator (Media Org) is responsible for back-end sales activities

Qualification Pack Details:

QP NOS Reference MES/Q0204

QP NOS Name Sales Co-ordinator
(Media Org)

NSQF Level 4

ISCO 08 Unit Group Details:

Code 1221

Title Sales and Marketing Managers

1221.0602

Sales Manager (Media Org)

Sales Manager (Media Org) is responsible to lead sales activities within the designated area of responsibility

Qualification Pack Details:

QP NOS Reference MES/Q0202

QP NOS Name Sales Manager
(Media Org)

NSQF Level 7

ISCO 08 Unit Group Details:

Code 1221

Title Sales and Marketing Managers

1221.9900

Sales and Marketing Managers, Other

Sales and Marketing Managers, Other include managers engaged in sales and marketing and related services, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1221

Title Sales and Marketing Managers

Family 1222 Advertising and Public Relation Managers

Advertising and Public Relation Managers plan, direct and co-ordinate the advertising, public relations and public information activities of enterprises and organizations or of enterprises that provide related services to other enterprises and organizations.

1222.0100

Manager, Advertising and Promotion

Manager, Advertising and Promotion plan and direct advertising policies and programmes or produce collateral materials, such as posters, contests, coupons, or give-aways, to create extra interest in the purchase of a product or service for a department, an entire organization, or on an account basis. Confer with clients to provide marketing or technical advice. Confer with department heads and/or staff to discuss topics such as contracts, selection of advertising media, or product to be advertised. Co-ordinate activities of departments, such as sales, graphic arts, media, finance, and research. Co-ordinate with the media to disseminate advertising. Formulate plans to extend business with established accounts and to transact business as agent for advertising

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

accounts. Gather and organize information to plan advertising campaigns. Identify and develop contacts for promotional campaigns and industry programmes that meet identified buyer targets such as dealers, distributors, or consumers. Inspect layouts and advertising copy and edit scripts, audio and video tapes, and other promotional material for adherence to specifications. Monitor and analyse sales promotion results to determine cost effectiveness of promotional campaigns. Plan and execute advertising policies and strategies for organizations.

ISCO 08 Unit Group Details:

Code 1222

Title Advertising and Public Relation Managers

1222.0102

Advertising Operations Co-ordinator (Digital)

Advertising Operations Co-ordinator (Digital) is responsible for implementing online advertisement campaigns

Qualification Pack Details:

QP NOS Reference MES/Q0206

QP NOS Name Advertising Operations Co-ordinator (Digital)

NSQF Level 7

ISCO 08 Unit Group Details:

Code 1222

Title Advertising and Public Relation Managers

1222.0200

Manager, Fashion/Fashion Manager

Manager, Fashion promotes new fashions and co-ordinates promotional activities, such as fashion shows, to induce consumer acceptance: Studies fashion and trade journals, travels to garment centres, attends fashion shows, and visits manufacturers and merchandise markets to obtain information on fashion trends. Consults with buying personnel to gain advice regarding type of fashion. Advises publicity and display departments of merchandise to be publicized. Selects garments and accessories to be displayed at fashion shows. Provides information on current fashion, style trends, and use of accessories. May contract with models, musicians, caterers, and other personnel to manage staging of shows. May conduct teenage fashion shows and direct activities of store-sponsored club for teenaged girls.

ISCO 08 Unit Group Details:

Code 1222

Title Advertising and Public Relation Managers

1222.9900

Advertising and Public Relations Department Managers, Others

Advertising and Public Relations Department Managers, Other include managers engaged in advertising and public relations and related services, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1222

Title Advertising and Public Relation Managers

Family Research and Development Managers 1223

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Research and Development Managers plan, direct and co-ordinate the research and development activities of an enterprise or organization or of enterprises that provide related services to other enterprises and organizations.

1223.0101 Manager Testing Facility

Manager Testing Facility needs to manage requirements identification, development and installation of testing facilities in R&D for validating the specifications of the product.

Qualification Pack Details:

QP NOS Reference	ASC/Q6503
QP NOS Name	Manager Testing Facility Level 6
NSQF Level	6

ISCO 08 Unit Group Details:

Code	1223
Title	Research and Development Managers

1223.0102 Manager Material Testing

Manager Material Testing needs to administer metallurgical testing, chemical testing and failure analysis of materials for fabrication of parts and other components that finally go into manufacturing of different products.

Qualification Pack Details:

QP NOS Reference	ASC/Q6502
QP NOS Name	Manager Material Testing
NSQF Level	5

ISCO 08 Unit Group Details:

Code	1223
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Title Research and Development Managers

1223.0201 Research Associate

Research Associate is responsible for supporting research activities in a particular scientific field based on the requirement of the organization. The job also involves going through many reports, analysing and interpreting data, creating research reports and documents

Qualification Pack Details:

QP NOS Reference	SSC/Q5301
QP NOS Name	Research Associate
NSQF Level	8

ISCO 08 Unit Group Details:

Code	1223
Title	Research and Development Managers

Sub Division 13

Production and Specialized Services Managers

Production and Specialized Services managers plan direct and co-ordinate the production of the goods and the provision of the specialized professional and technical services provided by an enterprise or organization. They are responsible for manufacturing, mining, construction, logistics, information and communications technology operations, for large scale agricultural, forestry and fisheries operations, and for the provision of health, education, social welfare, banking, insurance and other professional and technical services.

Tasks performed by workers in this sub-major group usually include: planning details of activities in terms of output,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

services provided, quality, quantity, cost, timeliness and labour requirements; setting standards and objectives; controlling the operation of plant and of procedures; assuring quality of the goods produced and services provided; preparing tenders and contract bids; establishing and managing budgets, monitoring costs, and adjusting activities, procedures and resources to minimize costs; overseeing the acquisition and installation of new plant and equipment; co-ordinating the implementation of health and safety requirements; planning and directing daily operations; overseeing the selection, training and performance of staff; preparing, or arranging for the preparation of, reports, budgets and forecasts; representing the enterprise or organization in negotiations with other agencies, and at conventions, seminars, public hearings and forums.

Occupations in this Sub Division are classified into the following Groups:

131	Production Managers in Agriculture, Forestry and Fisheries
132	Manufacturing, Mining, Construction and Distribution Managers
133	Information and Communications Technology Services Manager
134	Professional Services Manager

Group 131

Production Managers in Agriculture, Forestry and Fisheries

Production Managers in Agriculture, Forestry and Fisheries plan, direct, and coordinate production in large scale

agricultural, horticultural, forestry aquaculture and fishery operations such as plantations, large ranches, collective farms and co-operatives to grow and harvest crops, breed and raise livestock, fish and shellfish and to catch and harvest fish and other forms of aquatic life.

Occupations in this Group are classified into the following Families:

1311	Agricultural and Forestry Production Managers
1312	Aquaculture and Fisheries Production Managers

Family 1311 Agricultural and Forestry Production Managers

Agricultural and Forestry Production Managers plan, direct, and co-ordinate production in large scale agricultural, horticultural and forestry operations such as plantations, large ranches, collective farms and agricultural co-operatives to grow and harvest crops, and breed and raise livestock.

1311.0100

General Manager, Plantation

General Manager, Plantation manages plantation on behalf of employer. Examines soil, climatic conditions, scope for marketing, etc. to determine type of crop such as tea, coffee, rubber etc. to be grown. Selects, purchases and stores seeds, fertilisers, agricultural implements, etc. as required. Organizes operation of ploughing, manuring, planting etc. Supervises operations of manure preparation, weeding, spraying insecticides and other measures to protect crops from wild

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

animals and plant diseases. Organizes and supervises processes like tapping, threshing, plucking, withering, rolling, shifting, drying, cutting, sorting and storing of harvested produces. Undertakes publicity measures to publicise and to find out market for products and arranges for their transport. Organizes and supervises construction of buildings, quarters, roads, tanks, installation of electric and telephone lines, etc. Supervises and co-ordinates work of field and office staff. Recruits staff and teaches them modern methods of plantation and allocates work. Keeps equipment, fences, building, etc. in order. Maintains muster roll of labour and looks after office correspondence. Looks after welfare of labour and ensures that provisions of Plantation Act, Labour Act, etc. are observed. Ensures proper payment to labour. Pays various taxes to Government and fulfils other obligations, if any. Maintains production and cost statements and submits periodical reports to proprietor.

May specialize in growing particular type of plantation such as rubber, tea, coffee, etc. May conduct research and organize demonstration.

May arrange preservation of produce. May partially process produce prior to marketing.

ISCO 08 Unit Group Details:

Code 6112

Title Tree and Shrub Crop Grower

1311.0200

General Manager, Horticulture

General Manager, Horticulture organizes and supervises planting, maintenance and growth of fruit plants and arranges for marketing of produce. Determines types of fruits or nuts to be grown depending on nature of soil and climate, irrigation and

market facilities. Selects and purchases plants, fertilisers and agricultural implements. Organizes operations of ploughing, manuring, sowing or planting and watering. Devises ways and means to supply regular flow of water for irrigation. Supervises agricultural operations such as weeding, spraying insecticides, manuring and harvesting. Selects best market for produce and arranges its transport. Supervises and controls field and office staff. Trains field workers in latest methods of grafting and planting of trees. Attends to office correspondence and keeps cost and production account. Keeps equipment and building, etc. in good order. Pays various taxes and dues and fulfils other obligations. May specialize in growing particular types of fruits. May conduct research and organize field demonstration. May arrange preservation of fruits by canning or in cold storage. May develop variety of fruit trees by grafting and budding.

ISCO 08 Unit Group Details:

Code 6113

Title Gardeners, Horticultural and Nursery Growers

1311.0300

General Manager, Agricultural Farm

General Manager, Agricultural Farm plans, organizes and controls, co-ordinates operations and staff employed in 33 growing agricultural produce on small-scale farm on behalf of Government or other employers. Determines crops to be grown after examining soil, irrigational facilities, climatic conditions and scope for marketing. Selects, purchases and stores seeds, fertilisers and agricultural implements. Organizes ploughing, manuring, sowing and watering. Devises

ways and means to irrigate cultivation from well, tank, reservoir or other source of water supply. Supervises operations of manure preparation, weeding, spraying insecticides and other measures protecting crops from wild animals, harvesting, threshing winnowing, bagging, storing etc. Finds out market for cultivated products and arranges transport. Recruits staff and allocate work to them. Supervises and co-ordinates work of field and office staff. Keeps equipment, building, etc., in order. Maintains muster roll of labour and looks after office correspondence and keeps production and cost accounts. Pays various taxes and dues and fulfils other obligations. May specialize in growing certain types of crops. May conduct research and organize field demonstrations. May arrange preservation of crop.

ISCO 08 Unit Group Details:

Code 6114

Title Mixed Crop Growers

1311.0400

General Manager, Livestock Farm

General Manager, Livestock Farm manages livestock farm on behalf of the employer for breeding and raising different kinds of livestock. Arranges equipment and supplies for housing and feeding animals in consultation with employer. Selects and buys animals. Supervises preparation of feed, grazing arrangements and proper medical aid to keep animals in good health. Looks after pairing of animals on basis of pedigree for breeding. Supervises artificial insemination for developing good breed. Takes care of animals during birth of young and upbringing of young stock. Selects and sells animals for breeding and

fieldwork. Disposes off unproductive and unprofitable animals to avoid wastage. Watches expenditure and receipts to ensure economic running of farm. Controls office and field staff and co-ordinates work. Maintains accounts and records details of feed consumed, milk and other items produced, purchase and sale of animals and other accounts relating to live-stock farm. May raise and exhibit show of animals. May supervise cultivation and raising of feed for animals. May specialize in any particular branch of livestock farming. May supervise work of Stockman.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

1311.0500

General Manager, Dairy Farm

General Manager, Dairy Farm manages dairy farm on behalf of employer for production of milk, butter, ghee, etc. Supervises selection and purchase of animals, in consultation with employer. Makes proper arrangements for housing, feeding and treatment of milking animals. Pairs animals for breeding on basis of pedigree. Arranges artificial insemination for developing good breed. Takes proper care of animals during birth of young and takes necessary precautions during upbringing of young animals. Ensures that hygienic methods are used in cleaning udder of animals, washing of hands of Milkman, milk containers, etc. before milking. Supervises milking, preparation of butter, ghee, etc. and arranges their transportation and marketing. Selects and sells unprofitable animals. Controls office and field staff and co-ordinates their work.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

1311.0600

General Manager, Poultry

General Manager, Poultry manages poultry farm on behalf of employer to raise poultry for eggs and table use and arranges sale of produce. Determines varieties of poultry to be raised in consultation with employer. Purchases feed, eggs, chicken, incubators and other equipment required for poultry farm. Supervises arrangements for feeding, breeding, hatching and construction of foster-mother pan, and brooder houses for housing newly born chicks and adult birds. Makes provision for proper sanitation and medical facilities and gets them vaccinated at proper age. Adopts labour saving devices, co-ordinates work of various sections and controls office staff. Implements plan carefully to achieve fixed target of production and yields profit. Takes preventive measures against diseases of birds. Isolates and treats or disposes off ailing birds and takes measures against spread of epidemics. Determines selling price for eggs of different grades and stock of different ages and pedigree. Keeps breeding record. Studies improved methods in poultry development. Arranges preservation of eggs during summer and disposal of poultry by-products. Undertakes measures to publicise products. Pays taxes and prepares profit and loss statements. Maintains all accounts and correspondence relating to the farm. May raise selected poultry and sell quality eggs for hatching. May arrange demonstration of various kinds of hatchery plants to develop hatching of eggs. May raise and exhibit show of stock.

ISCO 08 Unit Group Details:

Code 6122

Title Poultry Producers

1311.0700

Manager, Agricultural Farm

Manager, Agriculture Farm; Superintendent, Agricultural Farm organizes and controls operations and staff employed in growing agricultural produce on large scale farm on behalf of Government or other employers. Determines crops to be grown after examining soil, irrigational facilities, climatic conditions and scope for marketing. Selects, purchases and stores seeds, fertilisers and agricultural implements. Organizes ploughing, manuring, sowing and watering. Devises ways and means to irrigate cultivation from well, tank, reservoir or other sources of water supply. Supervises operations of manure preparation, weeding, spraying insecticides and other measures to protect crops from wild animals, harvesting, threshing winnowing, bagging, storing etc. identifies markets for cultivated products and arranges transport. Recruits staff and allocates work to them. Supervises and co-ordinates work of field and office staff. Keeps equipment, building, etc., in order. Maintains muster roll of labour and looks after office correspondence and maintains production and cost accounts. Pays various taxes and dues and fulfils other obligations. May specialize in growing certain types of crops. May conduct research and organize field demonstrations. May arrange preservation of crop.

ISCO 08 Unit Group Details:

Code 1311

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Agricultural and Forestry Production Managers

1311.0800

Manager, Plantation

Manager, Plantation manages plantation on behalf of employer. Examines soil, climatic conditions, scope for marketing, etc. to determine type of crop such as tea, coffee, rubber etc. to be grown. Selects, purchases and stores seeds, fertilisers, agricultural implements, etc., as required. Organizes operation of ploughing, manuring, planting etc. Supervises operations of manure preparation, weeding, spraying insecticides and other measures to protect crops from wild animals and plant diseases. Organizes and supervises processes like tapping, threshing, plucking, withering, rolling, shifting, drying, cutting, sorting and storing of harvested produce. Undertakes publicity measures to publicise and to find out market for products and arranges for their transportation. Organizes and supervises construction of buildings, quarters, roads, tanks, installation of electric and telephone lines, etc. Supervises and co-ordinates work of field and office staff. Recruits staff and teaches them modern methods of plantation and allocates work. Keeps equipment, fences, building, etc. in order. Maintains muster roll of labour and looks after office correspondence. Looks after welfare of labour and ensures that provision of Plantation Act, Labour Act, etc. are maintained. Ensures proper payment to labour. Pays various taxes to Government and fulfils other obligations, if any. Maintains production and cost statements and submits periodical reports to proprietor. May specialize in growing particular types of plantation such as rubber, tea, coffee, etc. May conduct

research and organize demonstration. May arrange preservation of produce. May partially process produce prior to marketing.

ISCO 08 Unit Group Details:

Code 1311

Title Agricultural and Forestry Production Managers

1311.0900

Manager, Nursery

Manager, Nursery manages nursery to grow horticultural plants, such as trees, shrubs, flowers, ornamental plants, or vegetables for sale to trade or retail customers: Determines type and quantity of horticultural plants to be grown, considering such factors as whether plants will be grown under controlled conditions in hothouse or greenhouse or under natural weather conditions in field, and market demand or conditions, utilizing knowledge of plant germination, growing habits of plants, soil conditions, plant nutrients, and disease control requirements. Selects and purchases seed, plant nutrients, and disease control chemicals according to type of horticultural plants and conditions under which plants will be grown. Tours work areas to observe quality and quantity of work being done, to inspect crops and to evaluate horticultural conditions, such as plant disease and soil conditions. Directs and co-ordinates, through subordinate supervisory personnel, activities of workers engaged in planting of seed, raising, feeding, and controlling growth and disease of plants, and transplanting, potting, or cutting plants for marketing. Co-ordinates clerical, record keeping, accounting and marketing activities. May purchase nursery stock for resale and sell

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

gardening accessories, such as sprays, garden implements and plant nutrients.

ISCO 08 Unit Group Details:

Code 1311
Title Agricultural and Forestry Production Managers

1311.0901 Rubber Nursery Manager

Rubber Nursery Manager controls and co-ordinates all the nursery activities, labour management and office work. He is responsible for the quality assurance of the planting materials produced from the nursery.

Qualification Pack Details:

QP NOS Reference	RSC/Q0932
QP NOS Name	Rubber Nursery Manager
NSQF Level	6

ISCO 08 Unit Group Details:

Code 1311
Title Agricultural and Forestry Production Managers

1311.1000 Manager, Aerial Planting and Cultivation

Manager, Aerial Planting and Cultivation manages operations of aerial seed sowing and crop dusting establishment. Negotiates contracts with farm personnel to sow seeds of specified varieties or to spray or dust fields or crops with specified agricultural chemicals. Confers with the required authority to determine materials and conditions required to meet terms of contract and schedules flights according to factors, such as client requests,

weather conditions, aircraft availability, and legal and safety considerations. Monitors mixing of chemicals, loading chemicals and seeds into hopper of aircraft, and indicates flight passes to pilots from ground to ensure efficient and safe operations. Purchases seeds and chemicals from suppliers. Oversees repair and maintenance of aircraft and contracts for repair and maintenance of hangars, runway, and related company facilities. Maintains records for billing and payroll purposes. Initiates personnel actions, such as hiring, firing, and disciplining workers.

ISCO 08 Unit Group Details:

Code 1311
Title Agricultural and Forestry Production Managers

1311.1100 Manager, Orchard

Manager, Orchard manages orchards: Directs and co-ordinates, through subordinate supervisory personnel, orchard activities, such as orchard development, irrigation, chemical application and harvesting to ensure that company production goals are met. Evaluates oral and written reports and observes operations to monitor progress of work and to detect and resolve problems. Determines and authorizes alternative procedures to accommodate variables, such as weather conditions, water supply, stage of crops or tree development, and new legislation. Co-ordinates activities of the orchard department with those of engineering, equipment maintenance, packing house, and other related departments. Analyses financial statements and makes budget proposals. May initiate personnel actions, interpret company policies, and enforce safety regulations

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 1311
Title Agricultural and Forestry Production Managers

1311.1200

Manager, Horticulture Farm

Manager, Horticulture Farm organizes and supervises planting, maintenance and growth of fruit plants and arranges for marketing of produce. Determines types of fruits or nuts to be grown depending on the nature of soil and climate, irrigation and market facilities. Selects and purchases plants, fertilisers and agricultural implements. Organizes operations of ploughing, manuring, sowing or planting and watering. Devises ways and means to supply regular flow of water for irrigation. Supervises agricultural operations, such as weeding, spraying insecticides, manuring and harvesting. Selects the best market for produce and arranges its transportation. Supervises and controls field and office staff. Trains field workers in latest methods of grafting and planting of trees. Attends to office correspondence and maintains cost and production accounts. Keeps equipment and building, etc. in good order. Pays various taxes and dues and fulfils other obligations. May specialize in growing particular types of fruits. May conduct research and organize field demonstration.

May arrange preservation of fruits by canning or in cold storage. May develop variety of fruit trees by grafting and budding.

ISCO 08 Unit Group Details:

Code 1311
Title Agricultural and Forestry Production Managers

1311.1300

Manager, Livestock Farm

Manager, Livestock Farm manages a live-stock farm on behalf of the employer for breeding and raising different kinds of live-stock. Arranges equipment and supplies for housing and feeding animals in consultation with the employer. Selects and buys animals. Supervises preparation of feed, grazing arrangements and proper medical aid to keep animals in good health. Looks after pairing of animals on the basis of pedigree for breeding. Supervises artificial insemination for developing good breed. Takes care of animals during birth of young and upbringing of young stock. Selects and sells animals for breeding and field work. Disposes off unproductive and unprofitable animals to avoid wastage. Watches expenditure and receipts to ensure economic running of the farm. Controls office and field staff and co-ordinates work. Maintains accounts and records details of feed consumed, milk and other items produced, purchase and sale of animals and other accounts relating to the live-stock farm. May raise and exhibit show animals. May supervise cultivation and raising of feed for animals. May specialise in any particular branch of live-stock farming. May supervise work of Stockman.

ISCO 08 Unit Group Details:

Code 1311
Title Agricultural and Forestry Production Managers

1311.1400

Manager, Dairy Farm

Manager, Dairy Farm manages a dairy farm on behalf of the employer for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

production of milk, butter, ghee, etc. Supervises selection and purchase of animals, in consultation with the employer. Makes proper arrangements for housing, feeding and treatment of milking animals. Pairs animals for breeding on basis of pedigree. Arranges artificial insemination for developing good breed. Takes proper care of animals during birth of young and takes necessary precautions during upbringing of young animals. Ensures that hygienic methods are maintained while cleaning udder of animals, washing hands of Milkman, milk containers, etc. before milking. Supervises milking, preparation of butter, ghee, etc. and arranges their transportation and marketing. Selects and sells unprofitable animals. Controls office and field staff and co-ordinates their work. Records details of feed consumed, milk and other produce, purchase and sale of animals and other items relating to the income and expenditure of the dairy. Avoids wastage, maintains proper accounts and watches expenditure and receipts of farm for economic consideration. May raise and exhibit show animals. May arrange and supervise production of feed for animals. May conduct research and demonstrate process of working.

ISCO 08 Unit Group Details:

Code 1311

Title Agricultural and Forestry Production Managers

1311.1500

Manager, Poultry Farm

Manager, Poultry Farm manages a poultry farm on behalf of the employer to raise poultry for eggs and table use and arranges sale of produce. Determines varieties of poultry to be raised in consultation with the employer.

Purchases feed, eggs, chicken, incubators and other equipment required for the poultry farm. Supervises arrangements for feeding, breeding, hatching and construction of foster-mother, pan, and brooder houses for housing newly born chicks and adult birds. Makes provision for proper sanitation and medical facilities and gets them vaccinated at a proper age. Adopts labour saving devices, co-ordinates work of various sections and controls office staff. Implements plans carefully to achieve fixed target of production and yield profit. Takes preventive measures against diseases of birds. Isolates and treats or disposes off ailing birds and takes measures against the spread of epidemics. Determines selling price for eggs of different grades and stock of different ages and pedigree. Maintains breeding record. Studies improved methods in poultry development. Arranges preservation of eggs during summer and disposal of poultry by-products. Undertakes measures to publicise products. Maintains all accounts and correspondence relating to the farm. May raise selected poultry and sell quality eggs for hatching. May arrange demonstration of various kinds of hatchery plants to develop hatching of eggs. May raise and exhibit show stock.

ISCO 08 Unit Group Details:

Code 1311

Title Agricultural and Forestry Production Managers

1311.9900

Agricultural and Forestry Production Managers, Others

Agricultural and Forestry Production Managers, Others include all other Farm Managers and supervisors engaged in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

agriculture, horticulture, poultry, dairy, livestock and farming, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1311

Title Agricultural and Forestry Production Managers

Family 1312

Aquaculture and Fisheries Production Managers

Aquaculture and Fisheries Production Managers plan, direct, and co-ordinate production in large scale aquaculture and fishery operations to catch and harvest fish and shellfish, and to grow fish, shellfish or other forms of aquatic life, as cash crops or for release into freshwater or saltwater.

Group 132

Manufacturing, Mining, Construction and Distribution

Managers

Manufacturing, Mining, Construction, and Distribution Managers plan, organize, and co-ordinate the manufacturing, mineral extraction, construction, supply, storage and transportation operations.

Occupations in this Group are classified into the following Families:

1321 Manufacturing Managers
1322 Mining Managers
1323 Construction Managers
1324 Supply, Distribution and Related Managers

Family 1321

Manufacturing Managers

Manufacturing Managers plan, direct, and co-ordinate manufacturing production activities of large enterprises or as the manager of a small manufacturing company.

1321.0100

Manager, Electricity

Manager, Electricity co-ordinates and supervises, within authority delegated efficient utilisation of men, money and material in public or private organizations or establishments, or one or more of its departments, branches, etc., engaged in generation, transmission and distribution of electricity to domestic and industrial consumers.

ISCO 08 Unit Group Details:

Code 1321

Title Manufacturing Managers

1321.0200

Terminal Manager

Terminal Manager/Terminal Superintendent manages plants in which Liquefied Petroleum Gas, lubricants, and petroleum fuels are stored and distributed in bulk. Formulates policies with regard to storage, distribution and other operating problems. Determines type and quantities of products according to consumer demand. Contacts refineries and petroleum canning plants to schedule shipment of products. Establishes operating procedures for incoming shipments, indicating storage tanks and warehouse facilities to be used. Formulates policies for distribution and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

sale of products to wholesale and retail outlets and consumers.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.0300 Manager, Gas

Manager, Gas co-ordinates and controls, within authority delegated, efficient utilization of men, money and material in public or private organizations or establishments, or one or more of its departments, sections or branches, engaged in manufacture of gas and distribution of manufactured or natural gas to consumers, and production and supply of steam for heat, power, etc.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.0400 Manager, Water Supply

Manager, Water Supply co-ordinates and supervises within powers delegated, efficient utilisation of men, money and material in public or private organizations, or one or more of its departments or branches, engaged in storing, filtering and purifying water and supplying water to consumers.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.0500 Manager, Food Processing Plant

Manager food processing plant directs and co-ordinates activities of food processing plants. Contacts buyers or growers to arrange for purchasing or harvesting and delivery of agricultural products, seafood, meat, or other raw materials to plant for processing. Directs, through subordinate supervisory personnel, workers engaged in processing, canning, freezing, storing, and shipping food products. Directs and co-ordinates activities concerned with dismantling, moving, installing, or repair of machines and equipment. Approves plant payroll and payments for purchased materials or products. Estimates quantities of foods for processing required and orders foods, materials, supplies, and equipment needed. Hires, transfers, and discharges employees. May provide suppliers with transportation to expedite delivery of purchased products or supplies to the plant. May arrange for freezing of packaged products by other food processing plants. May negotiate with suppliers or growers regarding prices to be paid for purchases.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.0600 Manager, Manufacturing

Manager, Manufacturing organizes, co-ordinates and supervises, within powers delegated, efficient utilisation of men, money and material in public or private organizations or establishment, or one or more of its departments or branches, engaged in producing, maintaining or repairing capital or consumer goods, excluding crops, minerals electricity and natural gas. Is designated according to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

work performed or powers exercised such as:

MANAGER(MANUFACTURING). FACTORY MANAGER. PLANT MANAGER. FACTORY SUPERINTENDENT,
WORKS SUPERINTENDENT.
MANAGER, TEXTILE MILLS, MANAGER, TANNERY, MANAGER, SHOE FACTORY, MANAGER, BAKERY, MANAGER, PRESS, MANAGER, STEEL PLANT, MANAGER, GLASS FACTORY.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.0700

General Manager, Electricity

General Manager, Electricity co-ordinates and supervises, within authority delegated efficient utilization of men, money and material in public or private organizations or establishments, or one or more of its departments, branches, etc., engaged in generation, transmission and distribution of electricity to domestic and industrial consumers.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.0800

General Manager, Gas

General Manager, Gas co-ordinates and controls, within authority delegated, efficient utilization of men, money and material in public or private organizations or establishments, or one or more of its departments, sections or branches, engaged in manufacture of gas and distribution of manufactured or natural gas to consumers, and production and supply of steam for heat, power, etc.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.0900

General Manager, Water Supply

General Manager, Water Supply co-ordinates and supervises within powers delegated, efficient utilization of men, money and material in public or private organizations, or one or more of its departments or branches, engaged in storing, filtering and purifying water and supplying water to consumers.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.1000

General Manager, Manufacturing

General Manager, Manufacturing organizes, co-ordinates and supervises, within powers delegated, efficient utilisation of men, money and material in public or private organizations or establishments, or one or more of its departments or branches, engaged in producing, maintaining or repairing capital or consumer goods, excluding crops, minerals electricity and natural gas.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

1321.9900

Manufacturing Managers, Other

Manufacturing Managers, Other includes all other General Managers engaged in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

manufacturing and other related activities, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1321
Title Manufacturing Managers

Family 1322 Mining Managers

Mining Managers plan, direct, and coordinate the production activities of mining, quarrying and oil and gas extraction operations.

1322.0100 Manager, Mine

Manager, Mine controls and supervises operations in mines or one or more sections of mines for extraction of minerals such as coal, ore, mica, etc., observing statutory regulations and in accordance to policy and direction of management. Ensures satisfactory production and safety of men and material. Is designated according to powers exercised, work performed or material extracted such as: MINE SUPERINTENDENT, MANAGER, COLLIERY, MANAGER, IRON MINE, MANAGER, COPPER MINE.

ISCO 08 Unit Group Details:

Code 1322
Title Mining Managers

1322.0200 Manager, Quarry

Manager, Quarry controls and supervises, within authority delegated, operations in public or private quarry for extraction of stone, slate, clay, sand, etc. observing statutory regulations and following policies and direction of higher

authorities. Ensures satisfactory production and safety of men and material. Is designated according to powers exercised or minerals extracted such as: MANAGER, STONE QUARRY, MANAGER, LIME QUARRY, MANAGER, SLATE QUARRY.

ISCO 08 Unit Group Details:

Code 1322
Title Mining Managers

1322.0300 Manager, Well Drilling

Manager, Well Drilling controls and supervises within authority delegated, activities of public or private organizations engaged in drilling and sinking of wells and operating wells for extraction of mineral oil, natural gas, etc. Is designated according to work performed or authority delegated such as: MANAGER, OIL WELL, MANAGER, GAS WELL

ISCO 08 Unit Group Details:

Code 1322
Title Mining Managers

1322.0400 General Manager, Mine

General Manager, Mine controls and supervises operations in mines or one or more sections of mines for extraction of minerals such as coal, ore, mica, etc., observing statutory regulations and in accordance with policies and direction of management. Ensures satisfactory production and safety of men and material. Is designated according to powers exercised, work performed or material extracted.

ISCO 08 Unit Group Details:

Code 1322

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title	Mining Managers	Managers engaged in manufacturing, construction, mining, quarrying, well drilling and other related activities, like forestry, logging, etc. not elsewhere classified
1322.0500		
General Manager, Quarry		

General Manager, Quarry controls and supervises, within authority delegated, operations in public or private quarry for extraction of stone, slate, clay, sand, etc. observing statutory regulations and following policies and direction of higher authorities.

Ensures satisfactory production and safety of men and material. Is designated according to powers exercised or minerals extracted.

ISCO 08 Unit Group Details:

Code 1322
Title Mining Managers

1322.0600

General Manager, Well Drilling

General Manager, Well Drilling controls and supervises within authority delegated, activities of public or private organizations engaged in drilling and sinking of wells and operating wells for extraction of mineral oil, natural gas, etc. Is designated according to work performed or authority delegated such as: GENERAL MANAGER, OIL WELL. GENERAL MANAGER, GAS WELL.

ISCO 08 Unit Group Details:

Code 1322
Title Mining Managers

1322,9900

Mining Managers, Other

Manager, Mining and Quarrying, Electricity, Gas, Water Supply and Manufacturing, Other include all other Working Proprietors, Directors and

Managers engaged in manufacturing, construction, mining, quarrying, well drilling and other related activities, like forestry, logging, etc. not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1322
Title Mining Managers

Family 1323 Construction Managers

Construction Managers plan, direct and co-ordinate the construction of civil engineering projects, buildings and dwellings.

1323.0100
**Manager, Construction/Manager
Construction Projects**

Manager, Construction co-ordinates and supervises, within powers delegated, activities of public or private organizations or one or more of its departments or branches engaged in construction, maintenance and repairs of buildings, roads, railway tracks, aerodromes, bridges, canals, dams, etc. Is designated according to work performed or powers delegated such as: MANAGER, CONSTRUCTION. PROJECT MANAGER, CONSTRUCTION MANAGER EXCAVATIONS. CONSTRUCTION.

ISCO 08 Unit Group Details:

Code 1323
Title Construction Managers

1323.0200
Manager, Land Survey

Manager, Land Survey plans, directs, and co-ordinates work of survey parties, and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

related staff, engaged in surveying earth's surface and preparing reports and legal descriptions of land. Develops organization policies or interprets it to staff. Prepares or approves budget for unit or organization within the assigned area of responsibility. Co-ordinates work of Land Surveyor with that of legal, engineering, architectural, and other staff on project. Directs survey parties and projects, and reviews and certifies completed work to satisfy legal requirements. Writes or directs the writing of descriptions of land to satisfy legal requirements according to standard surveying practices. Appears as expert witness in court in cases involving land or boundary disputes. Monitors new technology and evaluates and purchases or authorises purchase of new equipment and supplies. Selects new staff for employment and takes disciplinary action when necessary. Assumes legal responsibility for work performed and is licensed by state.

ISCO 08 Unit Group Details:

Code 1323
Title Construction Managers

1323.0300 General Manager, Construction/General Manager Construction Projects

General Manager, Construction co-ordinates and supervises, within powers delegated, activities of public or private organizations or one or more of its departments or branches engaged in construction, maintenance and repairs of buildings, roads, railway tracks, aerodromes, bridges, canals, dams, etc.

ISCO 08 Unit Group Details:

Code 1323
Title Construction Managers

1323.9900 Construction Managers, Other

Construction Managers, Other includes all other General Managers engaged in construction, and other related activities, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1323
Title Construction Managers

Family 1324 Supply, Distribution and Related Managers

Supply, Distribution and Related Managers plan, direct and co-ordinate the supply, transportation, storage and distribution of goods.

1324.0100 Manager, Material Control/Manager Materials

Manager, Material Control directs and co-ordinates activities of personnel engaged in purchasing and distributing raw materials, equipment, machinery, and supplies in industrial plants, public utilities, or other organizations: Prepares instructions regarding purchasing systems and procedures. Prepares and issues purchase orders and submits notices to Purchasing Agents. Analyses market and delivery conditions to determine present and future material availability and prepares market analysis reports. Reviews purchase order claims and contracts for conformance to company policy. Develops and installs clerical and office procedures

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and practices, and studies work flow, sequence of operations, and office arrangement to determine expediency of installing new or improved office machines. Arranges for disposal of surplus materials.

ISCO 08 Unit Group Details:

Code 1324
Title Supply, Distribution and Related Managers

1324.0101

Manager Supplier Quality

Manager Supplier Quality needs to be responsible for overall supplier quality assurance functions for all facilities including incoming inspection, issue containment and supplier corrective actions.

Qualification Pack Details:

QP NOS Reference ASC/Q6302
QP NOS Name Manager Supplier Quality Level 6
NSQF Level 6

ISCO 08 Unit Group Details:

Code 1324
Title Supply, Distribution and Related Managers

1324.0102

Material Co-ordination Manager

Material Co-ordination Manager needs to co-ordinate and expedite procurement and flow of materials, parts, and assemblies between sections or departments of manufacturing, according to production and shipping schedules to ensure timely production of goods.

Qualification Pack Details:

QP NOS Reference ASC/Q6105

QP NOS Name	Material Co-ordination Manager
	Level 6
NSQF Level	6

ISCO 08 Unit Group Details:

Code 1324
Title Supply, Distribution and Related Managers

1324.0103

Manager Vendor Development

Manager Vendor Development needs to co-ordinate and expedite procurement and flow of materials, parts, and assemblies between sections or departments of manufacturing, according to production and shipping schedules to ensure timely production of goods.

Qualification Pack Details:

QP NOS Reference ASC/Q6203
QP NOS Name Manager Vendor Development Level 6
NSQF Level 6

ISCO 08 Unit Group Details:

Code 1324
Title Supply, Distribution and Related Managers

1324.0200

Manager, Transport

Manager, Transport supervises co-ordinates and controls, within authority delegated, efficient utilisation of men, money and material in public or private organizations or establishments, or one or more of its departments, branches or sections, engaged in transporting passengers and freight by railways, tramways, buses, trucks, taxis, rickshaws,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

boats, launches, ships, aircrafts and other means of transport, and operating services incidental to transport. Is designated according to work performed, authority exercised or transport service supervised such as: DIVISIONAL SUPERINTENDENT (RAILWAY), TRAFFIC SUPERINTENDENT(RAILWAY).

COMMERCIAL

SUPERINTENDENT(RAILWAY). STATION SUPERINTENDENT(RAILWAY). MANAGER, ROAD TRANSPORT, TRAFFIC MANAGER, MOTOR TRANSPORT, MANAGER, ROADWAYS, MANAGER, TAXI SERVICE, MANAGER, AIRLINES, AREA MANAGER, AIRLINES, TRAFFIC MANAGER, AIRLINES, OPERATING MANAGER, AIRLINES, MANAGER, SHIPPING, MANAGER, DOCK.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.0300

Station Master, Roadways

Station Master, Roadways controls and co-ordinates work of staff employed at roadways' stations, and supervises operation of all passenger buses, cars, luggage vans, and goods trucks within his section. Arranges layout of roadways' station for parking of vehicles, signboards of routes, scheduled timings of incoming and outgoing vehicles, passenger waiting hall, booking office counters, etc. for orderly conduct of business. Displays time and fare table and other important notices in station premises. Provides passenger amenities such as drinking water, and other conveniences for passengers. Prepares duty roster of Bus Conductors, Drivers and Cleaners. Checks attendance of staff under him and supervises their work. Maintains check sheets of all incoming and outgoing

vehicles, their number, station from where arrived, destination, time of arrival and departure etc. to ensure regularity and punctuality of service. Maintains fuel records issued to vehicles and checks way bills and journey bills of Conductors to verify correctness of fuel consumption, passenger fare and freight charge collections. Ensures that parcels and luggage's offered for transport by bus van and truck are packed, labelled and addressed properly. Arranges for running of additional buses to relieve heavy traffic of passengers in time of mela and important occasions. Rushes relief buses and other assistance in case of break down and accident. Attends to passenger complaints and takes re-medial action by reporting to proper authority as case merits. Maintains necessary records and registers, submits return as prescribed and performs other duties to promote road transport. Checks malpractices, ensures safety of passengers and goods booked, cleanliness of premises and incoming and outgoing buses, convenience of passengers, etc. May check passengers' tickets en route within his jurisdiction.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.0400

Traffic Inspector, Motor Transport

Traffic Inspector, Motor Transport inspects buses running on any route or area allotted to him and supervises work of Ticket Examiners, Time Keepers, Bus Conductors and Bus Drivers. Checks general appearance of buses and whether Conductors and Drivers are in uniform. Checks whether buses are running at

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

scheduled timings. Examines tickets and luggage of passengers to see whether correct tickets have been issued, and properly punched. Supervises alighting and boarding of passengers at important stops or destinations. Regulates arrival, departure and frequency of buses at important stops. Arranges for running of extra buses in cases of heavy rush of traffic. Visits spot in case of accidents, obtains facts and evidence thereof, etc. Informs nearest police station, gets in touch with depot or headquarters and submits reports to higher authorities. Diverts buses to alternate routes within city in case of fire, breakdown, jam, etc. Studies traffic requirements within his area, offers suggestions regarding timings, frequency, introduction or curtailment of services, and communicates reaction of passengers to management for appropriate action. May be designated as CHIEF INSPECTOR, MOTOR TRANSPORT if also engaged in supervising work of other MOTOR TRANSPORT INSPECTORS.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.0500

Manager, Traffic

Manager, Traffic conducts studies on company freight and passenger classifications, rates, and tariffs and formulates changes required to provide for increased revenues and profitability of operations: Analyses financial reports on operations and evaluates existing classifications, rates, and tariffs to determine changes required and need for expansion or curtailment of schedules and routes. Documents data to support proposals for increased revenues, expansion of schedules or routes, and files

application for new rates, schedules, or routes with regulatory agencies. Testifies before regulatory agencies to present company's position and need for increased revenues in order to operate profitability. Negotiates with personnel of other transportation companies on division of interline revenues and signs contract on terms of agreement. Consults with officials of other companies on traffic movement problems, such as freight handling, transfer, and in-transit storage. Directs and co-ordinates activities of workers in classification of shipments and in applying and enforcing rates and tariffs.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.0600

Traffic Inspector, Railway

Traffic Inspector, Railway inspects activities of stations under his jurisdiction to ensure compliance of all traffic and operative rules. Examines records and registers maintained at each station to check attendance records and efficiency of staff and extent to which trains operate on schedule. Inspects condition of station building, platform, drinking-water, refreshment facilities and other public conveniences. Checks crossing gates, goods shed, and parcel office for compliance with safety regulations. Conducts night inspection of signals and ensures that lighting arrangements are adequate. Makes surprise inspections by travelling in passenger or goods trains to check compliance with traffic rules. Accompanies important passengers in train to ensure that all facilities and courtesies are provided to them. Resolves public complaints and investigates minor

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

accidents, theft of goods, delays, etc.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.0700

Traffic Inspector, Tram

Traffic Inspector Tram supervises work of Tram Conductors and Tram Car Drivers to ensure operation of trams on schedule. Substitutes temporarily for Tram Starter. Checks Conductor's memo by field inspection to ensure running of tram at scheduled time. Tallies tickets sold with recorded entry and tickets held by passengers travelling in trams to check and avoid over payment of fares or over travelling by passengers. Reports complaints of poor service to higher authorities for action. Visits accident or breakdown sites and arranges to clear line to restore normal traffic. Provides first aid to injured persons. Observes performance of Conductors and reports any irregularity noticed to higher authorities. Maintains statistics of passengers travelling in tram cars and suggests improvement in schedule to divisional authorities.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.0800

Manager, Flight Operation

Manager, Flight Operation directs and co-ordinates through subordinate management personnel, flight operations and control activities of the air transport company's terminal station: Reviews

flight schedules, flight crew bid sheet for route, and crew schedules to ensure that assignments for schedules and routes are in accordance with personnel qualifications for type of aircraft, federal safety and operational regulations, union contract provisions, and company policies. Confers with flight crew personnel to resolve any differences regarding schedule and route assignments. Co-ordinates activities of sections in flight operations department, such as dispatching, flight control, flight training and meteorology, to ensure maximum operating efficiency. Confers with administrative personnel, government regulatory agencies, and representatives of other airlines to propose revision and adoption of rules and procedures governing flight operation activities. Directs preparation of supplemental training materials or revision of operational manuals resulting from changes in rules and procedures. Conducts investigations in co-operation with federal agencies to determine causes of aircraft accidents and to establish accident prevention and emergency methods and procedures. May check flight crew personnel on aircraft.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.0900

Aerodrome Officer

Aerodrome Officer Co-ordinates work of all staff engaged at airport. Supervises movement of air traffic at aerodrome and renders assistance to visiting aircraft and passengers. Ensures that air field is fenced around to prevent unauthorised intrusion and to keep it clear of any obstruction for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

safe landing and take-off of aircraft. Inspects runways and ensures that they are properly maintained, fire-fighting equipment is adequate and facilities for parking of aircrafts in aircraft hangers etc. are available. Obtains and transmits correct meteorological information to aircrafts. Provides proper lighting signal equipment to facilitate landing and take-off of aircraft. Looks after landing and take-off facilities and renders other aids to visiting aircraft. Collects and remits landing and parking charges on aircraft to Government treasury. Ensures that passengers' lounge, restaurants, book-stalls and other conveniences are well maintained. Provides first-aid to sick and injured passengers and crew. Supervises and controls fire-fighting operations at the airport. Assists search and rescue operations of aircraft and crew in distress. Takes security measures for protection of aerodrome. May attend to work of any of his subordinates, if required.

ISCO 08 Unit Group Details:

Code 1324
Title Supply, Distribution and Related Managers

1324.1000

Flight Operation Officer, Air Service

Flight Operation Officer, Air Service prepares flight plans based on meteorological reports, calculates fuel requirements and issues flight clearance certificates. Studies meteorological reports regarding air-current and prepares flight-plans. Calculates fuel requirements, taking into account air-routes, facilities regarding re-fuelling, etc. for guidance of Commander and Navigator of the aircraft. Prepares roster for flight crew for scheduled flights and briefs Pilots for journey indicating that the aircraft has

been accepted by next airport at which it is due to land and other factors e.g. approaching storm, unusual cargo, variation in the plane's, altitude and routing, or in normal take-off and landing operations. Ensures that other necessary arrangements, such as crew for stand-by flights, handing and taking over of flight documents, etc. have been made.

ISCO 08 Unit Group Details:

Code 1324
Title Supply, Distribution and Related Managers

1324.1100

Traffic Officer, Air Service/Traffic Controller

Traffic Officer, Air Service supervises loading and unloading of aircraft cargo and luggage and escorts passengers to and from craft. Guides passengers in and out of aircraft and arranges for the transport of their luggage to and from the aircraft. Stows cargoes into aircraft according to size, weight, type and destination as indicated in general loading instructions. Checks number of passengers aboard with the list available with the Airhostess or Steward. Ensures that the doors of the aircraft are properly closed before signal is given to Pilot for take-off. Arranges and supervises proper parking, housing and picketing of aircraft with the engineering staff. May operate teletype to send reports of passengers and cargo to next port of call. May arrange for the transportation of passengers to and from the airport.

ISCO 08 Unit Group Details:

Code 1324
Title Supply, Distribution and Related Managers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

	NSQF Level	5
1324.1200 Manager, Storage and Warehousing		
Manager, Storage and Warehousing supervises, co-ordinates and controls within authority delegated, public or private organizations or establishments or one or more of its departments, branches or sections engaged in providing storage and warehouse facilities to parties concerned and renders such other additional facilities as may be laid down or agreed to in business terms and conditions. May specialize in handling any particular type of item or commodity or sectional management and be designated accordingly.		
ISCO 08 Unit Group Details: Code 1324 Title Supply, Distribution and Related Managers		
1324.1201 Warehouse Supervisor		
Warehouse Supervisor in the Logistics industry is also known as Supervisor, Warehouse In Charge. Individuals in this role need to collect components required to obtain the required lists and information from the Data Entry Operator (DEO), plan the schedule for the day, allocate work to workers and oversee them for successful completion. Their responsibilities include solving operational issues in the warehouse and ensure smooth operations.		
Qualification Pack Details: QP NOS Reference LSC/Q2307 QP NOS Name Warehouse Supervisor		
1324.1300 Goods Supervisor, Railway		
Goods Supervisor, Railway supervises receipt, storage, despatch and delivery of goods, parcels, freights, etc. by rail. Regulates booking of materials for dispatch according to availability of waggons and ensures their easy flow as per priority the list. Inspects goods booked for proper packing and checks contents with sender's declaration. Checks adequacy of storage facilities for goods received. Directs loading of goods in waggons as instructed by Traffic Controller based on availability of clearance at other stations. Allots platforms for loading and unloading of goods to ensure speedy movement of waggons and minimise delays. Ensures compliance with necessary precautionary measures for loading and unloading explosives, inflammable, and like materials. Arranges for the delivery of goods to consignee against authorisations. Examines complaints and reports cases of thefts, shortages, losses, etc. to higher authorities for investigation. May issue receipts for goods received and payments made. May conduct loading and unloading operations.		
ISCO 08 Unit Group Details: Code 1324 Title Supply, Distribution and Related Managers		
1324.1400		

Goods Supervisor, Road Transport

Goods Supervisor, Road Transport supervises receipt, storage, despatch and delivery of goods, parcels, freights, etc. by road transport. Co-ordinates running of lorry services and assists in fixing up competent Drivers and Cleaners, taking into consideration nature of transportation required. Inspects goods to be transported, checks their packing, if necessary, and directs loading and unloading operations. Makes test checks of calculation of charges. Travels on line and makes surprise checks to ensure that the contents of lorry, tallies with the way bill. Makes suitable arrangements for transportation of goods in cases of breakdowns and accidents. Suggests competitive revised freight rates, as and when required, for better profits and business. Ensures that goods are properly received and, delivered to consignees and also that staff members behave properly. Investigates into complaints and recommends suitable remedial or disciplinary action. May make deliveries to consignees against authorisation. May calculate charges and issue receipts for payments made.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.1500

Station Master, Railway

Station Master, Railway co-ordinates work of all employees at railway station and supervises operation of all trains within his station limits. Notifies employees of changes in arrival and departure times of trains, boarding track numbers, and other changes affecting passengers for

announcement over loud speakers and for posting on call board. Ascertains that shift workers and train crew report at their scheduled time, and obtains replacements, if necessary. Supervises activities of passenger service personnel to ensure efficient and courteous service. Obtains clearance of line from next or junction station. Authorizes departure of passenger trains after transfer of mail and baggage is completed, delaying its departure, if necessary, for arrival of connecting train or on notification of train crew or Yardmaster. Authorizes repairs of station facilities or delegates their supervision. Investigates into causes of public complaints, minor accidents, etc. and takes remedial steps. Reports major mistakes, accidents, etc. to higher authorities, arranges transhipment of stranded passengers, and assists in providing first aid, medical, food and other services. Supervises performance of clerical and station staff, maintains prescribed records, registers, accounts, stock position, etc. and submits reports and returns as scheduled. May perform clerical tasks, sell tickets, etc. in small stations.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.1600

Platform Inspector, Railway

Platform Inspector, Railway controls platform staff and ensures cleanliness and general appearance of platform and attached rooms at Railway Stations. Supervises work of Porters to ensure that passengers are not overcharged or harassed by them. Allots duties to station service staff, checks cleanliness of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

platforms, waiting rooms, tea stalls, refreshment rooms etc. and ensures that they are clean and proper hygienic standard is maintained. Prevents entry of unlicensed Porters, Vendors etc., inside the platform. Inspects directional notices, posters and advertisements displayed on platform and gets defective and unauthorized ones removed. Attends to complaints, requests and inquiries from passengers and arranges services as provided under rules. Ensures safety of passengers in waiting rooms and takes necessary steps to prevent theft or any other illegal act within his jurisdiction. May intervene or settle platform disputes amongst passengers. May check overcrowding of passengers on platform and ensure their smooth flow by locating passages and incoming and outgoing gates at convenient places, in consultation with Station Master.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.1700

Rates Inspector, Railway

Rates Inspector, Railway scrutinizes cases and submits proposals in connection with reduction or enhancement of rates or fares. Examines existing rates of storing, handling and transporting goods, parcels and luggage. Examines passengers' fares for various classes of travel by railways and calculates item-wise net cost to determine profit or loss incurred by the government. Studies proposals and public demands for quick and safe transport and travel amenities and determines feasibility of introducing them within available resources. Computes data and suggests proposal to Commercial Manager or

appropriate authority to increase or reduce rates and fares, ensuring profit and improved service. May suggest measures to prevent malpractices, theft and loss of booked articles to minimise payment of compensation to public. May suggest introduction or extension of railway service to productive areas to earn freight.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.1800

Depot Starter, Tram

Depot Starter, Tram supervises work relating to allocation of operational staff and starting of trams from depots according to timetable. Obtains vehicle numbers from the engineering department for morning and evening turn out and prepares allocation statement showing route, route symbol and vehicles assigned. Maintains daily duty rotation board, weekly offs, leave and absentee statements of Tram Conductors and Drivers, arranges substitutes for absentees and forwards attendance statement to Time Keeper. Assigns Drivers and Conductors for duty to appropriate vehicles according to requirements of each vehicle. Announces crew and vehicle numbers as per stabling plan and ensures that vehicles turn out from depot at scheduled time and display appropriate route, route symbol and destination boards. Rearranges services during peak hours and periods of traffic congestion under instruction from higher authorities. Submits reports of vehicles turned out, routes covered, etc. Takes charge of lost items handed over by Conductors, Drivers or passengers and forwards them to lost

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

property office at the headquarter. May take special measures during disturbances or abnormal conditions.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.1900

Section Controller, Railway

Section Controller, Railway controls movement of rail traffic within his section, arranges crossing of trains, efficient utilization of wagons and formation of goods trains at junction stations. Controls movement of rail traffic within his territorial jurisdiction by constant telephonic contact with stations and on the basis of information received regarding movement of trains and rolling stock at different stations. Co-ordinates crossing of trains within his section with adjoining divisions and railways, according to time-table. Obtains full utilisation of wagons by adjusting supply and demand of wagons at different stations and controlling formation of trains at marshalling yard accordingly. Re-schedules rolling stock, transhipment, etc. in case of accidents and breakdowns. Maintains charts of running trains and ensures receipt and submission of prescribed reports and returns. May recommend changes in time table in accordance with public request and requirement.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.2000

Accident Officer, Tram

Accident Officer, Tram conducts inquiries of tram accidents and submits detailed report for further action. Visits accident site to assess loss of human life and or damage to property, if any. Notes down names and addresses or identification marks of dead persons, contacts injured and provides medical aid to them. Informs nearest relatives of persons affected by the accident. Notes names of passengers and other persons present at the place of accident and records their statements. Examines tram-line and other accessories to determine the cause of accident such as sabotage, negligence of operation staff, etc. Submits detailed report to superiors. Investigates into complaints of passengers or other untoward incidents which might have caused the accident. May attend court proceedings for claims made, if any. May assist police in investigation of cause of accidents or assessment of damage or in launching criminal cases against saboteurs, hooligans, etc.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.2100

General Manager, Transport

General Manager, Transport supervises, co-ordinates and controls, within authority delegated, efficient utilization of men, money and material in public or private organizations or establishments, or one or more of its departments, branches or sections, engaged in transporting passengers and freight by railways, tramways, buses, trucks, taxis, rickshaws, boats, launchers, ships, aircrafts and other means of transport,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and operating services incidental to transport.

Title Supply, Distribution and Related Managers

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.2200

General Manager, Storage and Warehousing

General Manager, Storage and Warehousing supervises, co-ordinates and controls within authority delegated, public or private organizations or establishments or one or more of its departments, branches or sections engaged in providing storage and warehouse facilities to parties concerned and render such other additional facilities as may be laid down or agreed to in business terms and conditions. May specialize in handling any particular type of item or commodity or sectional management and be designated accordingly.

ISCO 08 Unit Group Details:

Code 1324

Title Supply, Distribution and Related Managers

1324.9900

Supply, Distribution and Related Managers and General Managers, Other

Supply, Distribution and Related Managers and General Managers, Other, includes managers engaged in Transport, Storage and Communication, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1324

Group 133

Information and Communications Technology Services Manager

Information and Communications Technology Service Managers plan, direct, and co-ordinate the acquisition, development, maintenance and use of computer and telecommunication systems.

Occupations in this Group are classified into the following Families:

1330 Information and Communication Technology Services Managers

Family 1330

Information and Communication Technology Services Managers

Information and Communications Technology Service Managers plan, direct, and co-ordinate the acquisition, development, maintenance and use of computer and telecommunication systems.

1330.0100

Manager, Communication

Manager, Communication organizes, co-ordinates and supervises within authority delegated, efficient utilization of men, money and material in public or private organizations, or one or more of its

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

branches or departments engaged in providing postal, telephone, telegraph, wireless and other communication services. Is designated according to work performed, authority exercised or communication service managed such as: SUPERINTENDENT, POST OFFICES, SUPERINTENDENT, RAILWAY MAIL SERVICE. DISTRICT MANAGER, TELEPHONE, SUPERINTENDENT TELEGRAPHS. SUB-DIVISIONAL OFFICER, PHONES.

ISCO 08 Unit Group Details:

Code 1330
Title Information and Communication Technology Services Manager

1330.0101 Communication Analyst

Communication Analyst is responsible for communication materials supporting product development, programme delivery and client services.

Qualification Pack Details:

QP NOS Reference SSC/Q7102
QP NOS Name Communication Analyst
NSQF Level 5

ISCO 08 Unit Group Details:

Code 1330
Title Information and Communication Technology Services Manager

1330.0200 Contract Officer, Telephone/Liaising Officer/PRO/Business Executive

Contract Officer, Telephone scrutinizes requests for telephones, executes contracts, prepares estimates and

arranges stores, etc. for installing new telephone connections and supervises installation, removal and servicing of subscribers' apparatus. Scrutinizes requests from intending subscribers for installing new telephone connections, extensions and other telecommunication facilities and approves them. Prepares estimates of material for installation, removal and servicing of telephone apparatus. Organizes required personnel and supervises installation, removal and servicing of subscribers' apparatus. May make operating tests on circuits and relays to ensure proper functioning. May specialize only in one phase of work such as installation or maintenance.

ISCO 08 Unit Group Details:

Code 1330
Title Information and Communication Technology Services Manager

1330.0300 Post Master

Post Master controls and co-ordinates work of all employees under him in post-office to ensure efficient service to public in accordance with rules and regulations prescribed. Allocates and assigns responsibilities of subordinate personnel in his office. Maintains counters to facilitate service provided to public. Displays relevant postal rules and regulations and publicizes sales of special and commemorative stamp issues, Government bonds, etc. Controls sale of postage envelopes, stamps and other postal stationery and checks timely collection and delivery of letters, money orders, etc. within area prescribed. Checks cash book amounts, Saving Bank accounts and other prescribed records. Renders accounts to audit office relating to his office and sub-offices. Disburses pay and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

allowance to all categories of staff working under him in post office or branch offices. May supervise functions of telegraph office, if attached to post office. May keep cash and valuables in joint custody with Treasurer.

ISCO 08 Unit Group Details:

Code 1330
Title Information and Communication Technology Services Manager

1330.0600 General Manager, Communication

General Manager, Communication organizes, co-ordinates and supervises within authority delegated, efficient utilisation of men, money and material in public or private organizations, or one or more of its branches or departments engaged in providing postal, telephone, telegraph, wireless and other communication services.

ISCO 08 Unit Group Details:

Code 1330
Title Information and Communication Technology Services Manager

1330.0701 Cluster Manager

Cluster Manager is responsible for providing uninterrupted infra services to operators in the cluster. Ensure optimum utilization of resources; efficiency in reducing energy and other operational costs, delight customer by ensuring high up-time per mobile tower is maintained; adherence to compliance/performance parameters, technical and safety training of team and a holistic technical approach towards the entire infrastructure present at cell sites/mobile towers.

Qualification Pack Details:

QP NOS Reference	TEL/Q4102
QP NOS Name	Cluster Manager
NSQF Level	6

ISCO 08 Unit Group Details:

Code 1330
Title Information and Communication Technology Services Manager

1330.9900

Information and Communication Technology Services Manager, Other

Information and Communication Technology Services Manager, Other include managers who plan, direct, and co-ordinate the acquisition, development, maintenance and use of computer and telecommunication systems not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1330
Title Information and Communication Technology Services Manager

Group 134

Professional Services Managers

Professional Services Managers plan, direct and co-ordinate the provision of childcare, health, welfare, education and other professional services, and manage the branches of institutions providing financial and insurance services.

Occupations in this Group are classified into the following Families:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

1341	Child Care Service Managers
1342	Health Services Managers
1343	Aged Care Services Managers
1344	Social Welfare Managers
1345	Education Managers
1346	Financial and Insurance Service Branch Managers
1349	Professional Services Managers Not Elsewhere Classified

Family 1341 **Child Care Service Managers**

Child Care Service Managers plan, direct, co-ordinate and evaluate the provision of care for children in before-school, after-school, vacation and day care centres and services.

Family 1342 **Health Services Managers**

Health Service Managers plan, direct co-ordinate and evaluate the provision of clinical and community health care services in hospitals, clinics, public health agencies and similar organizations.

Family 1343 **Aged Care Services Managers**

Aged Care Service Managers plan, direct co-ordinate and evaluate the provision of residential and personal care services for individuals and families who are in need of such services due to the effects of ageing.

Family 1344 **Social Welfare Managers**

Social Welfare Managers plan, direct, and co-ordinate the provision of social and

community service programmes such as income support, family assistance, children's services and other community programmes and services.

Family 1345 **Education Managers**

Education Managers plan, direct, co-ordinate and evaluate the educational and administrative aspects of education services, primary and secondary schools, colleges and faculties and departments in universities and other educational institutions.

1345.0100 **Headmaster**

Head Master directs and co-ordinates educational, administrative, and counselling activities of primary or secondary school. Develops and evaluates educational programmes to ensure conformance to state and school board standards. Develops and co-ordinates educational programmes through meetings with staff, review of teachers' activities, and issuance of directives. Confers with teachers, students, and parents concerning educational and behavioural problems in school. Establishes and maintains relationships with colleges, community organizations, and other schools to co-ordinate educational services. Requisitions and allocates supplies, equipment, and instructional material as needed. Directs preparation of class schedules, cumulative records, and attendance reports. Observes and evaluates teacher performance. interviews and hires teachers. Walks about school buildings and property to monitor safety and security. Plans and monitors school

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

budget. May plan and direct building maintenance. May develop and administer educational programmes for students with mental or physical handicaps.

ISCO 08 Unit Group Details:

Code 1345
Title Education Managers

Family 1346 Financial and Insurance Service Branch Managers

Financial and Insurance Service Branch Managers plan, direct, and co-ordinate the branches of institutions that provide financial and insurance services, such as banks, building societies, credit unions and insurance companies. They provide advice and assistance to clients on financial and insurance matters.

1346.0100 Manager, Bank

Manager, Bank organizes, controls and supervises, within authority delegated, activities of private or public bank or one or more of its departments or branches. Is designated according to authority delegated or work performed such as: GENERAL MANAGER (BANK), MANAGER, LOANS DEPARTMENT (BANK) MANAGER, FOREIGN EXCHANGE DEPARTMENT (BANK). MANAGER, BANKING DEPARTMENT (BANK). CURRENCY OFFICER (BANK). CHIEF OFFICER, CREDIT (BANK). DISTRICT MANAGER(BANK). BRANCH MANAGER (BANK).

ISCO 08 Unit Group Details:

Code 1346
Title Financial and Insurance Service Branch Managers

1346.0200 Manager, Insurance

Manager, Insurance organizes, controls and supervises, within authority delegated, activities of private or public organizations or one or more of its departments or branches, engaged in life, fire, accident, marine and other general insurance business. Is designated according to work performed or authority exercised such as: ZONAL MANAGER (INSURANCE), DIVISIONAL MANAGER (INSURANCE). REGIONAL MANAGER (INSURANCE), AREA MANAGER (INSURANCE), BRANCH MANAGER (INSURANCE), BRANCH SECRETARY (INSURANCE), MANAGER, LIFE DEPARTMENT (INSURANCE).

ISCO 08 Unit Group Details:

Code 1346
Title Financial and Insurance Service Branch Managers

1346.9900 Financial and Insurance Service Branch Managers, Other

Financial and Insurance Service Branch Managers, Other include managers engaged in business services, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1346
Title Financial and Insurance Service Branch Managers

Family 1349 Professional Services Managers Not Elsewhere Classified

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

This unit group covers managers who plan, direct co-ordinate and evaluate the provision of specialized professional and technical services and are not classified in sub-major group 12, Business Services and Administration Managers, or elsewhere in sub-major group 13, Professional Services Managers. For instance, Managers responsible for the provision of policing, corrective actions, library, legal and fire services are classified here.

Sub Division 14

Hospitality, Retail and Other Services Managers

Hospitality, Retail and Other Services Managers plan, organize and direct the operations of establishments which provide accommodation, hospitality, retail and other services.

Tasks performed by workers in this sub-major group usually include: planning and organizing special functions, sporting, gaming and entertainment activities and the range and mix of products, stock levels and service standards; promoting and selling goods and services; observing liquor, gaming, health and other laws and regulations; developing and reviewing policies, programmes and procedures concerning customer relations and goods and services provided; promoting facilities, for conferences, conventions and trade shows, to potential customers; organizing the purchase and maintenance of transport vehicles, equipment and fuel, and transporting goods; controlling the selection, training and supervision of staff; ensuring compliance with occupational health and safety regulations.

Occupation in this Sub Division are classified into the following Groups:

142	Retail and Wholesale Trade Managers
143	Other Services Managers

Group 141

Hotel and Restaurant Managers

Hotel and Restaurant Managers plan, organize and direct the operations of establishments that provide accommodation, meals, beverages and other hospitality services.

Occupations in this Group are classified into the following Families:

1411	Hotel Managers
1412	Restaurant Managers

Family 1411

Hotel Managers

Hotel Managers plan, organize and direct the operations of hotels, motels and similar establishments to provide guest accommodation and other services.

1411.0100

Manager, Lodging and Catering Services/Resident Manager

Manager, Lodging and Catering Services organizes and supervises, within authority delegated, efficient utilisation of men, money and material in public or private organizations or establishments, or one or more of its departments or branches, engaged in preparing and serving food, drinks and beverages and providing lodging and camping facilities to public. Included are: MANAGER, HOTEL. MANAGER, RESTAURANT. MANAGER,

141 Hotel and Restaurant Managers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

CAFE, MANAGER, TEA HOUSE. MANAGER,
COFFEE HOUSE. MANAGER, BAR,
MANAGER, REST HOUSE.

ISCO 08 Unit Group Details:

Code 1411
Title Hotel Managers

1411.0200

General Manager, Lodging and Catering Services

General Manager, Lodging and Catering Services organizes and supervises, within authority delegated, efficient utilization of men, money and material in public or private organizations or establishments, or one or more of its departments or branches, engaged in preparing and serving food, drinks and beverages and providing lodging and camping facilities to public. Included are: GENERAL MANAGER, HOTEL. MANAGER, RESTAURANT. MANAGER, CAFE, MANAGER, TEA HOUSE, MANAGER, COFFEE HOUSE, MANAGER, BAR, MANAGER, REST HOUSE.

ISCO 08 Unit Group Details:

Code 1411
Title Hotel Managers

1411.9900

Hotel Managers, Others

Production and Operation Department Managers in Restaurants and Hotels, Other include Managers engaged both in restaurants and hotels, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1411
Title Hotel Managers

Restaurant Managers

Restaurant Managers plan, organize and direct the operations of cafes, restaurants and related establishments to provide dining and catering services.

1412.0100

Manager, Fast Food Service

Manager, Fast Food Service manages franchised or independent fast food or wholesale prepared food establishments. Directs, co-ordinates, and participates in preparation of and cooking, wrapping or packing types of food served or prepared by establishments, collects money from in-house or take-out customers or assembles food orders for wholesale customers. Co-ordinates activities of workers engaged in keeping business records, collecting and paying accounts, ordering or purchasing supplies, and delivery of foodstuff to wholesale or retail customers. Interviews, hires, and trains personnel. May contact prospective wholesale customers, such as mobile food vendors, Vending Machine Operators, bar and tavern owners, and institutional personnel, to promote sale of prepared food. May establish delivery routes and schedules for supplying wholesale customers. Workers may be known according to the type or name of franchised establishment or type of prepared foodstuff retailed or wholesaled.

ISCO 08 Unit Group Details:

Code 1412
Title Restaurant Managers

1412.9900

Restaurant Managers, Other

Family 1412

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

General Managers, Restaurants and Hotels, other include all other General Managers engaged in restaurant, hotel and other related activities, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1412
Title Restaurant Managers

Group 142

Retail and Wholesale Trade Managers

Retail and Wholesale Trade Managers plan, organize, co-ordinate and control the operations of establishments that sell goods on a retail or wholesale basis. They are responsible for the budgets, staffing and strategic and operational direction of shops, or of organizational units within shops that sell particular types of product.

Occupations in this Group are classified into the following Families:

1420 Retail and Wholesale Trade Managers

Family 1420 Retail and Wholesale Trade Managers

Retail and Wholesale Trade Managers, plan, organize, co-ordinate and control the operations of establishments that sell goods on a retail or wholesale basis. They are responsible for the budgets, staffing and strategic and operational direction of shops, or of organizational units within shops that sell particular types of products.

1420.0100

Manager, Wholesale Trade

Manager, Wholesale Trade organizes and manages wholesale trade organizations, or one or more of its branches or departments, engaged in buying goods and selling them for profits to retailers or industrial and commercial consumers. Is designated according to work performed or level of responsibility such as: MANAGER (Wholesale Trade), BRANCH MANAGER (Wholesale Trade), SALES MANAGER (Wholesale Trade).

ISCO 08 Unit Group Details:

Code 1420
Title Retail and Wholesale Trade Managers

1420.0200

Manager, Retail Trade

Manager, Retail Trade organizes and manages retail trade organizations, or one or more of its branches or departments, engaged in buying goods and merchandise and selling them for profit to customers. Is designated according to work performed or level of responsibility such as: BRANCH MANAGER (Retail Trade). AREA MANAGER (Retail Trade, DEPARTMENTAL MANAGER (Retail Trade).

ISCO 08 Unit Group Details:

Code 1420
Title Retail and Wholesale Trade Managers

1420.0300

Manager, Export

Manager, Export directs foreign sales and service outlets of an organization:. Negotiates contracts with foreign sales

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and distribution centres to establish outlets. Directs clerical staff in expediting export correspondence, bid requests, and credit collections. Arranges shipping details, such as export licenses, customs declarations, and packing, shipping, and routing of products. Directs clerical and technical staff in preparation of foreign language sales manuals. Expedites import-export arrangements and maintains current information on import-export tariffs, licenses, and restrictions.

ISCO 08 Unit Group Details:

Code 1420

Title Retail and Wholesale Trade Managers

1420.0400

General Manager, Wholesale Trade/Senior Manager, Wholesale Trade

General Manager, Wholesale Trade organizes and manages wholesale trade organizations, or one or more of its branches or departments engaged in buying goods and selling them for profits to retailers or industrial and commercial consumers.

ISCO 08 Unit Group Details:

Code 1420

Title Retail and Wholesale Trade Managers

1420.0500

General Manager, Retail Trade, Senior Manager, Retail Trade

General Manager, Retail Trade organizes and manages retail trade organizations, or one or more of its branches or departments, engaged in buying goods

and merchandise and selling them for profit to customers.

ISCO 08 Unit Group Details:

Code 1420

Title Retail and Wholesale Trade Managers

1420.9900

Retail and Wholesale Trade Managers, Other

General Managers in Wholesale and Retail Trade, Other include all other General Managers engaged in wholesale, retail trades and other related activities, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 1420

Title Retail and Wholesale Trade Managers

Group 143

Other Services Managers

Other Services Managers plan, organize, and control the operations of establishments that provide sporting, cultural, recreational, travel, customer contact and other amenity services.

Occupations in this Group are classified into the following Families:

1431 Sports, Recreation and Cultural Centre Managers

1439 Services Manager Not Elsewhere Classified

Family 1431

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Sports, Recreation and Cultural Centre Managers

Sports, Recreation and Cultural Centre Managers plan, organize, and control the operations of establishments that provide sporting, artistic, theatrical and other recreational and amenity services.

1431.0100

General Manager, Recreation and Entertainment

General Manager, Recreation and Entertainment controls, co-ordinates and supervises, within authority delegated, efficient and economic utilisation of men, money and material in public and private organizations, establishments etc., or one or more of its branches or departments, engaged in producing, distributing and exhibiting motion pictures; producing and presenting stage and circus shows; organizing and presenting radio and television broadcasts; operating carnivals and amusement parks; organizing games, hunting, fishing, excursions, competitions, etc., and providing other entertainment and recreation services. Included are: MANAGER, CINEMA. MANAGER, STUDIO. MANAGER, THEATRE. MANAGER, STAGE. MANAGER, CIRCUS. MANAGER, VARIETY SHOW. MANAGER, AMUSEMENT PARK, MANAGER, MAGIC SHOW, MANAGER, TOURNAMENT, MANAGER, STADIUM, MANAGER, CLUB, MANAGER, SWIMMING POOL, MANAGER, DANCE HALL, MANAGER, ORCHESTRA, MANAGER, EXHIBITION, MANAGER, CARNIVAL, MANAGER, RACE COURSE, MANAGER, GYMNASIUM.

ISCO 08 Unit Group Details:

Code 1431

Title Sports, Recreation and Cultural Centre Manager

1431.9900

Sports, Recreation and Cultural Centre Manager, Other

Sports, Recreation and Cultural Centre Manager, Other includes all other General Managers not covered in any of the families of Group 130.

ISCO 08 Unit Group Details:

Code 1431

Title Sports, Recreation and Cultural Centre Manager

Family 1439

Services Manager Not Elsewhere Classified

This unit group covers managers who plan, direct and co-ordinate the provision of services and are not classified in sub-major group 13, Production and Specialized Services Managers or elsewhere in sub-major group 14, Hospitality, Retail and Other Services Managers. For instance, Managers of travel agencies, conference centres, contact centres and shopping centres are classified here.

Division 2

Professionals

Professionals increase the existing stock of knowledge, apply scientific or artistic concepts and theories, teach about the foregoing in a systematic manner, or engage in any combination of these activities.

Tasks performed by Professionals usually include: conducting analysis and research,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and developing concepts, theories and operational methods, and advising on or applying existing knowledge related to physical sciences including mathematics, engineering and technology, and to life sciences including medical and health services social sciences and humanities; teaching the theory and practice of one or more disciplines at different educational levels; teaching and educating persons who are differently-abled; providing various business, legal and social services; creating and performing works of art; providing spiritual guidance; preparing scientific papers and reports. Supervision of other workers may be included.

Occupations in this Division are classified into the following Sub Divisions:

21	Science and Engineering Professionals
22	Health Professionals
23	Teaching Professionals
24	Business and Administrative Professionals
25	Information and Communication Technology Professionals
26	Legal, Social and Cultural Professionals

Sub Division 21 Science and Engineering Professionals

Physical, Mathematical and Engineering Science Professionals conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to fields such as physics, astronomy, meteorology, chemistry, geophysics, geology, mathematics, statistics, computing, architecture, engineering, and technology.

Tasks performed by workers in this sub-major group usually include: conducting research, enlarging, advising on or applying scientific knowledge obtained through the study of structures and properties of physical matter and phenomena, chemical characteristics and processes of various substances, materials and products, and of mathematical, statistical and computing concepts and methods; advising on, designing and directing construction of buildings, towns and traffic systems, or civil engineering and industrial structures, as well as machines and other equipment, and advising on and applying mining methods, and ensuring their optimum use; surveying and sea and making maps; studying and advising on technological aspects of particular materials, products and processes, and on efficiency of production and work organization; preparing scientific papers and reports. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

211	Physical and Earth Science Professionals
212	Mathematicians, Actuaries and Statisticians
213	Life Sciences Professionals
214	Engineering Professionals (excluding Electro technology)
215	Electro technology Engineers
216	Architects, Planners, Surveyors and Designers

Group 211 Physical and Earth Science Professionals

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Physical and Earth Science Professionals conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to physics, astronomy, meteorology, chemistry, geology and geophysics.

Occupations in this Group are classified into the following Families:

2111 Physicists and Astronomers
2112 Meteorologists
2113 Chemists
2114 Geologists and Geophysicists

Family 2111 **Physicists and Astronomers**

Physicists and Astronomers conduct research and improve or develop concepts, theories and operational methods concerning matter, space, time, energy, forces and fields and the interrelationship between these physical phenomena. They apply scientific knowledge relating to physics and astronomy in industrial, medical, military or other fields.

2111.0100

Physicist, General

Physicist, General conducts theoretical and experimental studies and research in different branches of physics such as gravitation, structure and properties of matter, heat, light, sound, electricity, magnetism, electronics, atomic and nuclear physics, biophysics, astrophysics, and geophysics to formulate theories of physical phenomena and to solve industrial and technical problems. Studies theory and experiments with physical properties of solids, liquids and gases.

Performs experiments on laws of motion, electricity, centre of gravity, liquid pressure etc., to identify and measure elements of matter and energy and their interaction. Applies results to formulate theories of physical phenomena, solve industrial and technical problems and for making delicate instruments and testing equipment. Undertakes study of applied physics for understanding analysis data, Solar stellae and astrophysics, biological and geophysical phenomena, etc. May specialize in one or more branches of physics such as mechanics, heat, light, sound, electronics, aero and hydrodynamics, or use of X-Rays in testing of materials.

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.0200

Physicist, Mechanics

Physicist, Mechanics conducts theoretical and experimental studies and research in fields of mechanics and aero dynamics, hydrodynamics, elasticity, hydrostatics, ballistics, etc., to formulate a theory of physical phenomena and solve industrial and technical problems. Performs basic tasks similar to those of Physicist General and conducts theoretical and experimental studies and research in different fields of mechanics using appropriate instruments, apparatus and equipment. Analyses data and formulates theories of physical phenomena and solves industrial and technical problems relating to hydrostatic, gravitation aerodynamics, hydrodynamics, ballistics, elasticity, use of high pressure or high-vacuum, control and efficiency of mechanical instruments and measuring

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

devices, etc. May specialize in one or more branches of mechanics.

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.0300

Physicist, Heat

Physicist, Heat conducts theoretical and experimental research and studies in the branch of physics concerning heat to formulate theories on its physical phenomena, and to solve connected industrial and technical problems. Performs basic tasks similar to Physicist General, conducts theoretical and experimental studies and research in generation, application or withdrawal of heat such as those connected with calorimetry, thermodynamics, high and low temperature effects, temperature measurements, and radiation. Analyses data and effects on physical state and evolves theories and formulae for designing heat engines, temperature recording instruments, application of heat, maintenance of temperature, cooling devices and other industrial and technical problems. May specialize in any particular branch of research on problems relating to heat.

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.0400

Physicist, Light

Physicist, Light conducts theoretical and experimental studies and research on transmission and projection of light and other optical problems for formulation of

theories on light and to apply them to industrial and technical uses. Performs basic tasks similar to Physicist General, conducts studies and experiments on transmission and projection of light and optical problems using lenses, mirrors, prisms, projectors and other appropriate apparatus, instruments and equipment. Analyses data, formulates theories and evolves formulae for designing optical instruments, solving optical problems and application to industrial and technical uses. May specialize in any particular branch of light such as illumination, spectroscopy, colometry, optics, photography, polarized light, photometry, and intra and ultra-rays.

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.0500

Physicist, Sound

Physicist, Sound conducts theoretical and experimental studies and research in the field of acoustics to formulate theories and solve various industrial and technical problems connected with generation, propagation, dispersion and reception of sound waves. Performs basic tasks similar to Physicist General, conducts studies and experiments for recording frequency, amplitude and compression of sound waves, using amplitude detector, frequency modulation detector, amplifiers, automatic recorders. Analyses data and evolves scientific theories for designing delicate sound recording and propagating instruments, vibration recorders, musical instruments etc. May specialize in any particular branch of sound such as broadcasting, transmitting, reception, musical instruments, etc.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.0600

Physicist, Electricity and Magnetism

Physicist, Electricity and Magnetism conducts theoretical and experimental studies and research in the fields of electricity and magnetism to formulate theories, evolve formulae and solve related industrial and technical problems. Performs basic tasks similar to Physicist General, conducts studies and research in various fields of electricity and magnetism, such as direct and alternate electrostatics, electromagnetism, electric currents, magnetic and electric fields, electrical generators and motors, electrical measuring instruments, radiation from high frequency circuits, electromagnetic induction, flow of electricity conductors, and insulators, using appropriate apparatus and equipment, such as ammeters, voltaic cells, voltmeters, galvanometers, magnetic compass, variable resistances, magnets, potentiometer and arc lamps. Analyses observations and readings, formulates theories, evolves formulae and applies them to design magnetic and electrical equipment, to solve industrial and technical problems, and in fields of electro-chemistry, X-Ray, heat and electronics. May specialize in particular field of electricity and magnetism.

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.0700

Physicist, Electronics

Physicist, Electronics conducts theoretical and experimental studies and research on electronics to formulate theories and evolve electronic laws and formulae for designing electronic equipment and solve industrial and technical problems. Performs basic tasks similar to Physicist General, conducts theoretical and experimental studies and research in the field of electronics, such as reception and transmission of electromagnetic waves, cathode rays, radiology, physiotherapy, and electronic signals for designing wireless receiving and transmission equipment, X-Ray electron microscopes, television, radio navigational aids, radar, electronic calculating machines electronic tubes, electronic equipment for civil, medical and defence purposes and to solve industrial and technical problems. May specialize in any particular field of electronics such as electron optics, electron emission, fluorescent materials, photo-electric cells, radio, circuits, microwaves, and electronic brain computers.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.0800

Physicist, Nuclear

Physicist, Nuclear; Physicist, Atomic conducts theoretical and experimental studies and research in fields of nuclear physics to formulate and apply theories in atomic fields for peaceful purposes. Performs basic tasks similar to Physicist

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

General, conducts research and studies in atomic fields such as nuclear structure and disintegration, measurements and separation of isotopes (elements having very similar chemical and physical properties but slightly different in atomic weights), generation of high velocity particles and X-Ray crystallography. Analyses observations and data and evolves theories and designs for nuclear generation of power, fission and fusion of atoms, medical use and other purposes. May specialize in any particular field of nuclear physics.

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.0900 **Astronomer**

Astronomer, Astrophysicist studies, size, shape, position, mass, movement and other characteristics of heavenly bodies such as moon, planets and stars, and interprets solar and stellar prominences and other celestial phenomena. Observes celestial bodies with telescopes fitted with complex devices such as spectrometers, photometers, bolometers and other photography and radiation-recording instruments and records observations. Computes position and orbits of stars, planets, comets and asteroids. Takes photographs of sun in calcium and hydrogen lights to locate sun spots and eruption. Interprets data regarding size, composition, position, temperature etc. of planets and other heavenly bodies at given times to be used by air and sea navigators. Publishes results of observations and solar prominences, dark marking and other phenomena. Sends periodical messages to research centres regarding solar and geomagnetic

observations, behaviour and other phenomena of sun and moon during particular periods (International geophysical year). May undertake research in special fields. May specialize in particular fields and activities such as cosmic rays, ozone, radio astronomy etc.

ISCO 08 Unit Group Details:

Code 2111
Title Physicists and Astronomers

2111.1000 **Metrologist**

Metrologist develops and evaluates calibration systems that measure characteristics of objects, substances, or phenomena, such as length, mass, time, temperature, electric current, luminous intensity, and derived units of physical or chemical measure: Identifies magnitude of error sources contributing to uncertainty of results to determine reliability of measurement process in quantitative terms. Redesigns or adjusts measurement capability to minimize errors. Develops calibration methods and techniques based on principles of measurement science, technical analysis of measurement problems, and accuracy and precision requirements. Directs engineering, quality, and laboratory personnel in design, manufacture, evaluation, and calibration of measurement standards, instruments, and test systems to ensure selection of approved instrumentation. Advises others on methods of resolving measurement problems and exchanges information with other metrology personnel through participation in government and industrial standardization committees and professional societies.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 2111
Title Physicists and Astronomers

2111.1100

Material Scientist

Material Scientist conducts scientific studies for understanding, characterizing and developing materials leading to potential uses for the benefit of science and emerging technologies. Conducts programmes for studying structures and properties of various materials, such as metals, alloys, ceramics, semiconductors and polymers to obtain research data. Plans experimental laboratory production of materials having special characteristics to confirm feasibility of processes and techniques for potential users. Prepares reports of material studies for information of other scientists and requestors. May guide technical staff engaged in developing materials for specific use in projected product or device.

ISCO 08 Unit Group Details:

Code 0
Title Chemists; Physicists and Astronomers

2111.9900

Physicists and Astronomers, Other

Physicists and Astronomers, Other include all other physicists and astronomers working in other fields of physics and astronomy such as those engaged in controlling, testing and analysing physical and astronomical properties or in developing experimental, testing and recording equipment, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2111

Title Physicists and Astronomers

Family 2112

Meteorologists

Meteorologists prepare short-term or long-term weather forecasts used in aviation, shipping, agriculture and other areas and for the information of general public. They conduct research related to the composition, structure and dynamics of the atmosphere.

2112.0100

Meteorologist

Meteorologist studies, compiles and interprets weather data, forecast changes in weather over short and long periods and supplies metrological information for various interests, such as agriculture, aviation, etc. Sets up metrological post equipped with special devices and equipment, such as barometer, thermometer, anemometer, hygrometer, humidity recorders, balloons, and radio-theodolite. Observes and records readings from equipment and analyses them to determine barometric pressure, temperature and moisture content of air, fog and snow, direction and speed of wind, rainfall and atmospheric ozone. Interprets data and forecasts changes in weather conditions for agriculture, navigation, scientific aviation and other purposes. Informs aerodrome authorities about weather conditions for safety of planes in flight. Prepares weather charts and maps indicating climatic and weather conditions. Checks recording instruments, hydrogen balloons, equipment and accessories periodically and ensures their accuracy and correct performance. May undertake research in specific fields and specialize in any particular branch of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

metrology such as solar and stellar observation or radio astronomy. Is designated as Climatologist, if engaged in compiling and interpreting data on temperature, sunlight, rainfall, humidity and wind for forecasting weather conditions. Is designated as Aeronautical Meteorologist, if engaged in forecasting weather changes for aircraft flights stressing atmospheric conditions, such as wind, aloft, ceiling, visibility, cloud formation etc. Is designated as Hydro-meteorologist, if engaged in analysing problems of formation and movement of water particularly relating to flood control, hydroelectric power, irrigation and similar field of engineering and water resources. Is designated as radio-meteorologist, if engaged in propagation of radio engineering through atmosphere by use of radio and radar equipment in metrology and as Aerologist, if engaged in studying phenomena of upper air for use of Pilots proposing high altitude flights.

ISCO 08 Unit Group Details:

Code	2112
Title	Meteorologists

2112.9900

Meteorologists, Other

Meteorologists, Other include meteorologists who conduct research, improve or develop concepts, theories and operational methods related to the composition, structure and dynamics of the atmosphere, and prepare detailed or long term weather forecasts used in aviation, shipping, agriculture and other areas and for the information of general public not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2112
Title	Meteorologists

Family 2113

Chemists

Chemists conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to chemistry, to develop new knowledge or products and for quality and process control.

2113.0100

Chemist, General

Chemist, General conducts chemical analysis, synthesis, research and sampling of solids, liquids or gases to determine their composition, properties, physical and chemical changes as means of developing new products effecting improved production process and advancing scientific knowledge. Tests samples of materials or substances by various chemical means such as dissolving them in solvents observing changes from application of heat, pressure or vacuum from reaction to acids, standard reagents (gases and chemicals), and from precipitation, filtration, dehydration and cooling to determine their properties. Conducts quantitative, qualitative, ion exchange, and micro-chemical analysis, microscopic analysis, electronic hydrogen ion measurements, component separation by electrolysis, etc. to find physical and chemical composition, crystalline structure, pH values, optical activity, behaviour of ions and other characteristics of samples. Assesses results of experiments and conducts any additional research needed to devise or improve methods of production, perfect formulae, develop new products or for further knowledge in the field. May control chemical processes and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

production methods and supervise performance of Laboratory Assistants, Chemical. May guard against explosions and accidents. May interpret findings statistically. May specialize in particular field of work.

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0200

Chemist, Organic

Chemist, Organic conducts analysis tests, and experiments on organic carbon compounds such as petroleum, dyes, and rubber to determine their properties, structure and other characteristics for improving production processes or for advancing technical knowledge. Performs basic tasks similar to Chemist General utilizing appropriate chemical processes depending on nature of test or experiment. Assesses results obtained to find new compounds, perfect formula, effect improvement in production processes or to further develop research processes. May specialize in a particular branch of organic chemistry, such as petroleum, dyes, rubber, alcohol, oils, natural fats, organic acids, pesticides, organic compounds and their polymerization and precipitate products, plastics and soaps.

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0300

Chemist, Inorganic

Chemist, Inorganic conducts analysis tests and experiments on inorganic substances

such as metals, acids, salts and gases to determine their properties, reactions, and other characteristics. Performs basic tasks like Chemist General utilizing chemical processes according to nature of test or experiment such as distillation, evaporation, filtration, detection of cations and anions (positive and negative ions), and salt analysis. Assesses results to find different constituents of compounds and solutions, their strength, optical activity etc., for sampling, to develop new compounds, improve production procedures or increase technical knowledge in the research field. May specialize in particular field of work such as production acids, salts, minerals and metals or in the laboratory research and analysis work. NATIONAL CLASSIFICATION OF OCCUPATIONS

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0400

Chemist, Physical

Chemist, Physical conducts tests and experiments with metal ores, gases and different chemical elements and compounds to ascertain their physical and chemical properties, radio activity, structures, atomic and molecular weight etc., by application of electro-chemistry thermodynamics and various physico-chemical processes. Performs basic tasks similar to Chemist General using instruments and apparatus such as sensitive balances, spectroscope, microscope, X-Ray, pressure and temperature measuring devices, depending upon type of test or experiment. Analyses readings and assesses results by applying principles of electro-chemistry, thermodynamics periodic classification of elements, atomic

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

theory, chromatography (Qualitative and quantitative measurements of ions) to determine physical and chemical properties, atomic weight, atomic structure, pH value, radio activity, relationship in periodic classification table, characteristics, reaction at different temperature and pressures fission and fusion of atoms, change of state of solid, liquid and gases etc., for advancement of research knowledge and for improvement of production processes. May specialize in particular branch of physical chemistry.

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0500

Chemist, Analytical

Chemist, Analytical conducts chemical analysis of inorganic and organic samples to ascertain their composition, reaction and properties. Performs basic tasks like Chemist General using instruments, apparatus and standard reagents in the laboratory such as spectroscope, pressure and temperature recording devices, desiccators, balances, acids, alkalize, and standard solution indicators to determine composition, strength or conformity with prescribed standards to ascertain presence or absence of a particular element. Analyses findings and submits report to medical or other authorities. May do statistical interpretation of observations.

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0600

Chemist, Industrial

Chemist, Industrial analyses at different stages of production samples of heavy chemicals, hydrogenation of oils, fertilizers, cosmetics etc., to ensure stipulated correct chemical composition of end product. Studies chemical properties of raw ingredients, chemical reactions being effected, and composition of final product to determine most economic qualitative and quantitative production processes. Applies findings in collaboration with Production Manager and Chemical Engineer. Prescribes rate of feeding of raw material, tests samples at different stages of production, regulates chemical reactions by various processes such as application or pressure or vacuum, introduction of catalyst (substance which causes chemicals to react but which itself is not involved), evaporation, and filtration to ensure stipulated qualitative and quantitative control. Tests samples of final product and makes any needed adjustments in manufacture process to maintain prescribed standards. May suggest alterations or modifications in the plant and lay out designs to improve production process. May specialize in any particular branch of work.

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0601

Quality Control Chemist

Quality Control Chemist prepares and tests samples from all phases of the manufacturing process to ensure that the product quality meets the standards, prepares documents that report test results and is responsible for preserving workplace safety while handling hazardous materials. Also responsible for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

testing of in-process/input raw materials and packing materials, in-process samples apart from finished products. Also responsible for testing of process validation samples, product stability samples and cleaning validation samples (Rinse samples/Swab samples etc.)

Qualification Pack Details:

QP NOS Reference	LFS/Q0203
QP NOS Name	Quality
Control Chemist	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0621 Lab Chemist-Finished Product Testing

Lab Chemist-Finished Product Testing carries out testing for the finished rubber product as per laid down methods and specifications.

Qualification Pack Details:

QP NOS Reference	RSC/Q0315
QP NOS Name	Lab Chemist-
Finished product testing	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0622 Lab Chemist-Incoming raw material testing

Lab Chemist-Incoming raw material testing carries out of tests of incoming raw materials used for preparation of

rubber compound as per laid down methods and specifications.

Qualification Pack Details:

QP NOS Reference	RSC/Q0312
QP NOS Name	Lab Chemist- Incoming raw material testing
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0623

Lab Chemist-Compound testing–Batch Release

Lab Chemist-Compound testing–Batch Release carries out tests as per laid down methods and specifications.

Qualification Pack Details:

QP NOS Reference	RSC/Q0313
QP NOS Name	Lab Chemist- Compound testing – Batch Release
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2113
Title	Chemists

2113.0624

Lab Chemist-Cured compound testing

Lab Chemist-Cured compound testing carries out testing for the cured compound as per laid down methods and specifications.

Qualification Pack Details:

QP NOS Reference	RSC/Q0314
QP NOS Name	Lab Chemist-Cured compound testing

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 5

metallurgy, biochemistry, medicine, or others.

ISCO 08 Unit Group Details:

Code 2113
Title Chemists

2113.0800

Chemist, Forensic Science

Chemist, Forensic Science applies scientific principles for analysis, identification, and classification of mechanical devices, chemical and physical substances, materials, liquids, or other physical evidence related to criminology, law enforcement, or investigative work. Searches for, collects, photographs, and preserves evidence. Performs variety of analytical examinations, utilising chemistry, physics, mechanics, and other sciences. Analyses items, such as paint, glass, printed matter, paper, ink, fabric, dust, dirt, gases, or other substances, using spectroscope, microscope, infrared and ultraviolet light, microphotography, gas chromatograph, or other recording, measuring, or testing instruments. Identifies hair, skin, tissue, blood, bones, or human organs. Examines and classifies explosives, firearms, bullets, shells, and other weapons. Interprets laboratory findings relative to drugs, poisons, narcotics, alcohol, or other compounds ingested or injected into the body. Reconstructs crime scene, preserving marks or impressions made by shoes, tires, or other objects by plaster or moulage casts. Prepares reports or presentations of findings, methods, and techniques used to support conclusions, and prepares results for court or other formal hearings. May testify as expert witness on evidence or crime laboratory techniques. Confers with experts in such specialties as ballistics, fingerprinting, handwriting, documents, electronics,

ISCO 08 Unit Group Details:

Code 2113
Title Chemists

2113.0901

Quality Assurance Chemist

Quality Assurance Chemist performs physical checks, conducts document verification exercises, ensures compliance to systems and procedures, conducts/participates in internal/external audits and also carries out in-process sampling, and finished product sampling activities.

Qualification Pack Details:

QP NOS Reference LFS/Q0301
QP NOS Name Quality Assurance Chemist
NSQF Level 5

ISCO 08 Unit Group Details:

Code 2113
Title Chemists

2113.9900

Chemists, Other

Chemists, Other include all other chemists performing laboratory tests, analysis and experiments such as those engaged in agricultural chemistry, geochemistry, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2113
Title Chemists

Family 2114

Geologists and Geophysicists

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Geologists and Geophysicists conduct research; improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to geology and geophysics in such fields as oil, gas and mineral exploration and extraction, water conservation, civil engineering, telecommunications and navigation, and assessment and mitigation of the effects of development and waste disposal projects on the environment.

2114.0100 Geologist

Geologist studies physical structure of earth's crust, its rock formations and fossils to determine earth's history, gradual changes and development or to locate minerals and fuels. Conducts exploratory geological survey using special instruments and techniques such as air survey and air-photo mapping and geo-chemical and geophysical prospecting methods to locate deposits of mineral, oil and gas. Supervises drilling operations in areas of economic mineral deposits. Collects samples of minerals or rocks at various depths for detailed study to determine their formulation and quality and quantity of deposits. Evaluates extent of deposit for commercial exploitation and under-takes and co-ordinates various activities relating to drilling, testing, development and production. Prepares reports, maps and diagrams showing outcrops of rocks and ore bodies and their various geological structures. Advises on suitability of soils and rocks for construction of dams, tunnels, roads, buildings, etc., and on strength of foundation necessary. Renders advice on problems of underground water reservoirs. Studies natural phenomena such as earthquakes, volcanoes, glaciers and mountain building for advancement

of knowledge and research on gradual changes and development of earth's crust. May combine teaching with research and administrative work when employed by college or university. May be designated according to the field of duties such as Exploration Geologist, Test Geologist, Development Geologist and Resident Geologist.

ISCO 08 Unit Group Details:

Code 2114

Title Geologists and Geophysicists

2114.0200 Petrologists

Petrologists study composition, structure and genesis of rocks and minerals forming earth's crust. Studies thin section of rocks and minerals using microscopes. Traces causes of rock and mineral formation on basis of microscopic studies, pattern of sedimentation etc. Makes genetic classification of rocks and reconstructs geological history of sedimentation and igneous activities. May advise on economic exploitation and composition of rocks and indicate likely pattern of ore and mineral concentration.

ISCO 08 Unit Group Details:

Code 2114

Title Geologists and Geophysicists

2114.0300 Palaeontologist

Palaeontologist studies fossilized remains of plants and animals, founding geological formations, in order to trace historical sequence of evolution and development of past life and to identify geological formations according to their nature and chronology. Visits different areas and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

studies earth and rock formations, nature of soil, etc. Collects fossilized specimens from geological formations using special tools such as hammer, sickle, etc. and classifies them according to botanical and zoological families and probable age. Prepares treatises on findings giving evaluation of life, formation of earth and sea and other geological data to aid location of natural resources such as petroleum bearing formations or coal. May maintain fossil specimens as museum exhibits. ay also study plant fossils.

ISCO 08 Unit Group Details:

Code 2114

Title Geologists and Geophysicists

2114.0400 Geophysicist

Geophysicist studies seismic, gravitational, electrical, thermal and magnetic phenomena to determine structure and composition of earth and its environment in space. Investigates origin, location and activities of glaciers and volcanoes and characteristics of earthquakes. Prepares charts of oceans, takes related measurements concerning shape and movement of earth and acoustic, optical and electrical phenomena in atmosphere using precision instruments, such as seismograph, magnetometer, gravimeter etc. to measure transmission of vibrations through earth's interior, magnetization of different kinds of rocks and pull of gravity. Applies electromagnetic, magnetic, gravity and seismic tests and other research data to locate petroleum, mineral deposits and other structural features. Selects fixed points on surface of earth for use in making navigational charts and maps. Predicts radio-communication and atmospheric conditions. Develops water supply and flood-control programmes.

May specialize in a particular branch of geophysics and be designated according to the field of work, such as Exploration Geophysicist or Development Geophysicist.

ISCO 08 Unit Group Details:

Code 2114

Title Geologists and Geophysicists

2114.0500 Hydrologist

Hydrologist Studies distribution, disposition, and development of waters of land areas, including form and intensity of precipitation, and modes of return to the ocean and atmosphere. Maps and charts water flow and disposition of sediment. Measures changes in water volume due to evaporation and melting of snow. Studies storm occurrences and nature and movement of glaciers, and determines rate of ground absorption and ultimate disposition of water. Evaluates data obtained in reference to such problems as flood and drought forecasting, soil and water conservation programmes, and planning water supply, water power, flood control, drainage, irrigation, crop production, and inland navigation projects.

ISCO 08 Unit Group Details:

Code 2114

Title Geologists and Geophysicists

2114.0600 Mineralogist

Mineralogist examines, analyses and classifies minerals to determine their composition and internal structure. Conducts microscopic, X-Ray, spectroscopic and other examinations of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

minerals to determine their composition. Does chemical analysis of minerals and renders advice on economic exploitation of mineral deposits.

ISCO 08 Unit Group Details:

Code 2114
Title Geologists and Geophysicists

2114.0700 **Seismologist**

Seismologist investigates phenomena relating to earth, cause and effects of earthquakes and other seismic activities using seismographs and other instruments for registering earthquakes. Designs, develops and calibrates seismographic instruments according to the degree of sensibility and type of data required. Supervises selecting of sites and setting of seismograph. Collects and analyses data recorded by seismographs to locate the epicentre of an earthquake, depth of focus, intensity and frequency of impulses, etc. Processes data and disseminates conclusion by issuing bulletins and reports. Conducts studies at important earthquake sites to determine intensity of earthquakes and other seismic phenomena. Locates faults in earth's crust structure and prepares detailed seismic zonal maps. Conducts field studies by evaluating nature of damage through explosive seismology to evolve suitable seismic design co-efficient for structures like dams and buildings to counter-balance destructive effects of seismic phenomena to locate important faults in earth's crust structure and geology, and for advance explanation of seismic phenomena. May conduct seismological investigation in exploration of ores and oil deposits.

ISCO 08 Unit Group Details:

Code 2114
Title Geologists and Geophysicists

2114.0800 **Oceanographer**

Oceanographer studies characteristics of oceans for use in navigation, geography, meteorology and other sciences. Makes oceanic explorations to gather data on configuration and nature of ocean bed and such phenomena as tides, currents and icebergs. Makes chemical analysis of bottom mud and seawater at various depths. Maps deposition of sand on beaches. Studies and summaries exploration data to develop a comprehensive and unified picture of oceanic behaviour.

ISCO 08 Unit Group Details:

Code 2114
Title Geologists and Geophysicists

2114.1500 **Geologist, Petroleum**

Geologist, Petroleum explores and charts stratigraphic arrangement and structure of earth to locate gas and oil deposits. Studies well logs, analyses cores and cuttings from well drillings, and interprets data obtained by electrical or radioactive well logging and other subsurface surveys to identify earth's strata. Examines aerial photographs, evaluates results of geophysical prospecting, and prepares surface and subsurface maps and diagrams depicting stratigraphic arrangement and composition of earth and probable deposits of gas and oil. Recommends acquisition, retention, or release of property leases or contracts. Estimates oil reserves in proven or prospective fields, and consults with PETROLEUM ENGINEERS (petrol. & gas)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

concerning drilling and production methods. May direct drilling of shallow exploratory wells.

ISCO 08 Unit Group Details:

Code 2114

Title Geologists and Geophysicists

2114.5500

Hydrographer, Waterworks

Hydrographer, Waterworks analyses hydrographic data to determine trends in movement and utilization of water. Reads meters and gauges to measure water flow and pressure in streams, conduits, and pipelines, and records data. Measures water level in lakes, reservoirs, and tanks. Calculates seepage and evaporation rates for dams and reservoirs. Measures depth of water in wells and test holes to determine ground water level. Measures snow characteristics to evaluate water yield from snow runoff. Prepares graphs and charts to illustrate water patterns. Positions sluice gates to direct water onto spreading grounds. Installs, calibrates, and maintains metering instruments. Recommends locations for metering stations and placement of instruments.

ISCO 08 Unit Group Details:

Code 2114

Title Geologists and Geophysicists

2114.9900

Geologists and Geophysicists, Other

Geologists and Geophysicists, Other include all other Geologists and Geophysicists, performing research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to geology

and geophysics in such fields as oil, gas and mineral exploitation, water conservation, civil engineering, telecommunications and navigation not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2114

Title Geologists and Geophysicists

Group 212

Mathematicians, Actuaries and Statisticians

Mathematicians, Actuaries and Statisticians conduct research, improve or develop mathematical, actuarial and statistical concepts, theories and operational models and techniques and apply this knowledge to a wide range of tasks in such fields as engineering, business and social and other sciences

Occupations in this Group are classified into the following Families:

**2120 Mathematicians, Actuaries and
Statisticians**

Family 2120

Mathematicians, Actuaries and Statisticians

Mathematicians, Actuaries and Statisticians conduct research and improve or develop mathematical, actuarial and statistical concepts, theories and operational methods and techniques and advise on or engage in their practical application in such fields as engineering, business and social and other sciences.

2120.0100

Mathematician

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Mathematician solves mathematical problems by using known principles or by evolving new principles and techniques and applies mathematical principles and methods of analysis for solution of various economic and other scientific problems. Determines and applies mathematical principles involved for solution of problems. Carries out research to discover new principles or to develop and improve known principles. Formulates their own mathematical tools and ways of application to abstract theoretical problems. May work problems of mathematical nature in other branches of science such as mechanics, hydrodynamics, communication, power transmission thermodynamics etc.

ISCO 08 Unit Group Details:

Code 2120

Title Mathematicians, Actuaries and Statisticians

2120.0200

Actuary

Actuary calculates and fixes premium rates for insurance against different types of risks on the basis of statistical, mathematical and financial calculations involving probability of future payment or contingencies. Collects and analyses data from different sources concerning losses to person from death, disability, sickness, injury etc. and losses to property from fire, burglary, explosion, hazards etc. Considers probable frequency of such risks, calculates their costs, and fixes rates of premiums for different types of risks taking in to account money market and economic conditions and probable future trends thereon. Studies continually about new developments, business trends, legislative, social and other factors

affecting insurance business. Prepares contract provisions of insurance and pension plans. Determines proper basis and methods of evaluating liability of insurance and pension organizations. Recommends to management suitable measures regarding future policies and course of action for raising earnings. Advises management about extent of bonus out of profits if valuation discloses strong financial position. May prepare records on mortality (death), morbidity (sickness) and compute tables of premium rates and policy values. May prepare articles, press releases and speeches dealing with insurance business.

ISCO 08 Unit Group Details:

Code 2120

Title Mathematicians, Actuaries and Statisticians

2120.0300

Statistician

Statistician develops and applies most effective methods for collecting, tabulating and interpreting quantitative data in any one of the various fields. Determines character and volume of information necessary for solution of any statistical problem and obtains or devises methods for collecting necessary information. Reduces or determines most effective techniques for reduction of data according to nature of available information and type of problem under study. Interprets and presents data in the form of charts, graphs, diagrams and written summaries. May write reports analysing and evaluating conclusions on the basis of variable conditions affecting interpretation or validity. May specialize in any particular branch of statistics such as financial or industrial statistics, or in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

statistical analysis in specific scientific field such as physics, chemistry or biology.

ISCO 08 Unit Group Details:

Code 2120

Title Mathematicians, Actuaries and Statisticians

2120.0400

Statistician, Applied

Statistician, Applied plans data collection, analyses and interprets numerical data from experiments, studies, surveys, and other sources and applies statistical methodology to provide information for scientific research and statistical analysis: Plans methods to collect information and develops questionnaire techniques according to survey design. Conducts surveys utilizing sampling techniques or complete enumeration bases. Evaluates reliability of source information, adjusts and weighs raw data, and organizes results into a form compatible with analysis by computers or other methods. Presents numerical information by computer readouts, graphs, charts, tables, written reports or other methods. Describes sources of information, and limitations on reliability and usability. May analyse and interpret statistics to point out significant differences in relationships among sources of information, and prepares conclusions and forecasts based on data summaries. May specialize in specific aspect of statistics or industrial activity reporting.

ISCO 08 Unit Group Details:

Code 2120

Title Mathematicians, Actuaries and Statisticians

2120.0500

Operation Research Analyst

Operation Research Analyst formulates and applies mathematical modelling and other optimizing methods using a computer to develop and interpret information that assists management with decision making, policy formulation, or other managerial functions. May develop related software, service, or products. Frequently concentrates on collecting and analysing data and developing decision support software. May develop and supply optimal time, cost, or logistics networks for programme evaluation, review, or implementation. Analyses a problem in terms of management information and conceptualizes and defines the problem. Prepares model of the problem in the form of one or several equations that relates constants and variables, restrictions, alternatives, conflicting objectives and their numerical parameters. Specifies manipulative or computational methods to be applied to a model. Evaluates implementation and effectiveness of research. Develops and applies time and cost networks to plan and control large projects. Prepares for management reports defining problem, evaluation, and possible solution. Studies information and selects plan from competitive proposals that afford maximum probability of profit or effectiveness relating to cost or risk. Defines data requirements, gathers and validates information, applying judgment and statistical tests. Designs, conducts, and evaluates experimental operational models where insufficient data exists to formulate a model. Performs validation and testing of the model to ensure adequacy, or determines need for reformulation.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 2120
Title Mathematicians, Actuaries and Statisticians

2120.0501 **Associate-Analytics**

Associate-Analytics is responsible for tracking business metrics and generating dashboards for the consumption of business managers. Individuals need to develop research protocols, analytical frameworks and crack tough business problems across verticals. Individuals also need to explore data to find new patterns and relationships by applying quantitative techniques, and build statistical models.

Qualification Pack Details:

QP NOS Reference SSC/Q2101
QP NOS Name Associate-Analytics
NSQF Level 7

ISCO 08 Unit Group Details:

Code 2120
Title Mathematicians, Actuaries and Statisticians

2120.9900 **Mathematicians, Actuaries and Statisticians, Other**

Statisticians, Other include all other statisticians not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2120
Title Mathematicians, Actuaries and Statisticians

Group 213

Life Science Professionals

Life Science Professionals apply knowledge gained from research into human, animal and plant life and their interactions with each other and the environment to develop new knowledge, improve agricultural and forestry production, and solve human health and environmental problems.

Occupations in this Group are classified into the following Families:

2131	Biologists, Botanists, Zoologists and Related Professionals
2132	Farming, Forestry and Fisheries Advisors
2133	Environmental Protection Professionals

Family 2131 **Biologists, Botanists, Zoologists and Related Professionals**

Biologists, Botanists, Zoologists and related professionals study living organisms and their interactions with each other and with the environment, and apply this knowledge to solve human health and environmental problems. They work in diverse fields such as botany, zoology, ecology, marine biology, genetics, immunology, pharmacology, toxicology, physiology, bacteriology and virology.

2131.0100 **Biologist, General**

Biologist, General studies and conducts research in field or laboratory on various aspects of plant and animal life, such as their origin, development, physiology, heredity, environment, reproduction, adaptability, inter-relationship and their classification. Undertakes field study of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

plants or animals in their natural habitat or collects specimens for study in laboratory. Dissects and studies specimens using microscope, chemicals, photographic methods and other scientific aids. Identifies, classifies and preserves specimens for research and study purposes. Makes statistical analyses of experimental data and prepares reports on findings. May raise experimental plants or animals. May apply results of studies to evolution aspects of human life. May teach students in colleges and schools. May specialize in particular research aspect of evolution and animal or plant life.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.0200

Marine Biologist

Marine Biologist studies plant and animal life in sea, shore, shallow and off-shore waters and their environmental conditions that affect their relative abundance and distribution. Makes periodical trips to the sea or spot of study to investigate water temperature, light acidity, amount of oxygen, and other physical conditions at various depths to determine their relation to abundance of different forms of marine at various levels and in different areas. Collects samples of water and specimens of various types of marine life including worms, snails, small plank tonic organisms upon which fish etc. feed. Conducts research in laboratory and investigates evolution of life in sea. Relates findings of research to economic exploitation of sea life, marine products, etc. May specialize in fresh water fish and be designated as LIMNOLOGIST.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.0300

Cytologist

Cytologist studies and conducts research in plant and animal cells in relation to their functions, formation, growth behaviour, physical and chemical reactions, disease, etc. Selects and cuts sections of minute parts of animal or plant tissues for microscopic study and employs stain techniques to make self-structures visible or to differentiate parts for study. Studies component parts and details about division of cells. Relates findings to breeding and reproduction of plants and animals carrying particular characteristics or hereditary characters. Determines physical and chemical factors for growth of cells. Raises different plants in experimental farm for breeding and hybridization. Observes behaviour of hybrids with reference to chromosome pairing, cause of sterility etc., and effects of physical and chemical agents like X-rays, gamma rays, chemical solutions etc. Introduces desirable characters from wild relatives of crop plants into cultivated plants. May be designated as CYTOGENETICIST if specialized in transfer of genetic characters and as PLANT CYTOLOGIST or ANIMAL CYTOLOGIST according to the field of specialization. May teach students.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.0400

Botanist, General

Botanist, General studies origin, development, structure, physiology, reproduction, economic values, etc., of plants for use in such fields as agriculture, forestry and horticulture. Undertakes field trips for study of basic aspects of plant life in natural environments. Collects specimens of plants and of rare species or phenomena for study in the laboratory. Cuts sections and studies formation of cells and tissues in plants using microscope, special staining techniques and scientific equipment. Identifies and classifies plants. Studies effect on plant growth of environment factors such as rainfall, temperature, climate, soil etc. Devises new methods and measures for growing of plants and other crops useful to human and animal life. Reports on medicinal value of plants and evolves measures for its economic exploitation. Preserves plants and other plant parts in special preservatives or in herbarium sheets. Maintains experimental botanical garden for study and research purposes. May teach students. May conduct research in special fields of study such as ecology, mycology, algology, embryology, etc. May specialize in experiment and research of particular crops like rice, sugarcane, cotton etc. and be designated as RICE SPECIALIST, SUGARCANE SPECIALIST, COTTON SPECIALIST etc.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.0500

Economic Botanist

Economic Botanist specializes in study of plants yielding food, fibre, medicines, essential oil, resin, gum, dyes etc., for economic and industrial purposes and determines conditions necessary for their growth, development and utilization. Collects various types of plants of economic value and grows them under controlled conditions to determine best climatic soil and other essentials. Selects, tests and cross fertilizes (breeds) plants to obtain optimum qualities and quantities of plants for use as food, drugs, fibre, and other economic purposes. May specialize in such fields as oil bearing trees, resins, food, condiment, forage crops etc.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.0600

Plant Breeder

Plant Breeder conducts experiments in fields and under controlled conditions to breed improved varieties of plants in relation to size, quality, yield, resistance to frost and diseases etc. Studies different characteristics of plants, such as their growth, yield etc. of both imported and indigenous varieties. Grows plants in selected areas under controlled climatic conditions. Compares characteristics of indigenous varieties with foreign or imported varieties to select best breed for local propagation. Breeds or cross-breeds plants of one variety with another to evolve strain of improved yield, height, size, resistance to diseases etc. Grows nucleus seeds in experimental farms to multiply them under controlled conditions of soil, fertility, climate, irrigation etc. Breeds new varieties by inducing artificial mutation by use of light rays, chemicals

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and radio-active isotopes. Conducts sample check of yield, quality, quantity etc. Handles plants after the variety is released. May specialize in breeding particular crop plants, such as cotton, millets, pulses, oil seeds, paddy, sugarcane, etc. May teach students.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.0700

Mycologist

Mycologist conducts research on identification, structure, growth, dissemination and classification of fungi and evolves methods to apply findings in fields of agriculture medicine and industry. Obtains specimen of fungi and prepares cultures in selected media. Conducts microscopic observations of specimens under laboratory conditions to study their structure, growth and multiplication and identifies and classifies chosen specimens. Studies relationship between fungi and other plants and animals. Evolves techniques of control of fungi by chemical and other methods. Extracts, analyses and tests use of by-products of fungus activity and evolves new strains of fungi for similar studies. Conducts experiments for medical and industrial application of such by-products. May specialize and conduct research and development in fields of antibiotics, preservation of stores and improved methods of propagating and growing edible fungi.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.0800

Algologist

Algologist studies, identifies and classifies algae plants for use as edibles and soil manure. Visits areas such as sea-sides, river-sides, swamps for the study of algae on natural surroundings. Collects specimens of different varieties of algae for study in laboratory. Studies nitrogen content, food value, etc. of algae for economic exploitation. Propagates methods for growing particular type of algae to enrich nitrogen content of soil for paddy cultivation. May specialize in the study of fresh water algae or marine algae and control the growth of algae in water circulation system.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.0900

Zoologist, General

Zoologist General studies animal life in relation to origin, evolution, classification, structure, behaviour, life processes, disease, environment, growth, development, genetics, mutations, etc. and relates findings to problems affecting human, animal and plant life. Undertakes field trips to collect data and observe animal life in natural habitat on land and in water and collects specimens for study in the laboratory. Dissects specimens and studies structure and functioning of organs, diseases of organs, cells, etc. of nervous, reproduction and circulatory systems, anatomy of body cells etc. under the microscope and other scientific equipment. Prepares microscopic slides of special features for future study and

research. Preserves rare species of animals in special preservatives and gets large animals mounted by Taxidermist. Studies characteristics of living organisms. Analyses findings and interprets data giving possible or probable causes that affect human life. Collects, rears and breeds various kinds of animals and birds such as mice, monkeys, fowls, pigeons, etc. in artificial condition in captivity for experimental purpose and knowledge of wild life management. May specialize in particular branches of Zoology such as study of embryos, birds, mammals, etc. and be designated as EMBRYOLOGIST, ORNITHOLOGIST, HISTOLOGIST, VIROLOGIST, BIOLOGIST, CYTOLOGIST, MAMMALOGIST, etc. May teach students in institutions.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.1000

Entomologist

Entomologist conducts research on different species of insects, non-insects and pests and experiments with different insecticides to devise economic and practical methods to eliminate or control harmful pests which cause damage to trees, crops, fruits etc. and to develop growth of beneficial insects. Makes field visits to collect, identify and classify different types of insects and pests. Maintains museum of insects and pest collections in special mounts. Studies nature and extent of damage caused to crops by insects, pests, rats etc. Conducts research in laboratory on insects, their life history and other features. Aids in control and elimination of harmful pests by developing new and improved insecticides

and biological methods including use of birds, insects and other enemies which prey upon destructive pests. Propagates methods of lac culture, storage of grains, eradication of crop pests, etc. among farmers and others. May specialize in bee or silk worm rearing and be designated as APICULTURIST and SERICULTURIST respectively. May specialize in plant protection, storing of grains etc. May teach students.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.1100

Parasitologist

Parasitologist conducts research on animal or human parasites such as protozoans, liver flukes, round-worms, tape-worms etc. and evolves measures for control and treatment of parasitic infection. Collects parasites from different areas and beings such as vertebrates and invertebrates, external parts, arterial cavities, alimentary canal, blood and from other tissue and conducts research in laboratory to study characteristics, habits, life cycles etc. to determine their manner of attack on human beings and animals and effects produced. Investigates modes of transmission from host to host. Develops methods and agents with which to combat parasites or treat infections. May specialize in particular variety of parasites or in the development of drug and chemical agents for parasite control. May be designated as PROTOZOOLOGIST, if specialized in study and control of unicellular microscopic parasites causing diseases in men and animals; NEMATOLOGIST, if engaged in study and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

control of nematodes (round-worms) that are plant parasitic.

ISCO 08 Unit Group Details:

Code 2131
Title Biologists, Botanists, Zoologists and Related Professionals

2131.1200

Bacteriologist

Bacteriologist; Micro-biologist conducts research and laboratory experiments on occurrence, growth, development, control and utilisation of bacteria and other microorganisms (including viruses) affecting plant, animal and human life, and industrial processes. Prepares cultures of bacteria by placing samples in suitable nutritive media. Examines samples of isolated bacteria under microscopes for identification. Observes reactions of bacteria to contact with various kinds of chemical substances and effects of changes in physical environment. Studies action of microorganisms on living tissues of higher animals and dead organic matter; analyses organic substances produced by bacteria while acting on organic matter to determine nature of by-product. Evolves and prepares weakened strains of harmful bacteria for utilization in vaccination, immunization and serological application. Studies methods of stimulating and retarding activity of micro-organisms and their utilization in the industry. Records and report's findings. May specialize in any particular branch of bacteriology, such as dairy, food, soil or public health bacteriology, mycology, etc. and may be known as DAIRY BACTERIOLOGIST, FOOD BACTERIOLOGIST, INDUSTRIAL BACTERIOLOGIST, VETERINARY BACTERIOLOGIST, etc.

ISCO 08 Unit Group Details:

Code 2131
Title Biologists, Botanists, Zoologists and Related Professionals

2131.1300

Chemist, Biological

Chemist, Biological; Biochemist conducts tests and studies metabolic processes in plants and animals to determine their nutrition requirements, their ability to detect and separate poisons from materials and composition of their biological fluids in order to develop and produce antibiotics, serum, vaccines and drugs. Performs basic tasks similar to Chemist General by applying modern techniques like chromatography, electrophoresis, spectrophotometry radioactive tracers and Warburg manometry for analysis of biological compounds under both normal and pathological conditions. Isolates enzymes and other active principles from tissues and studies their action and properties both at cultural stage and by actual application. Analyses and studies plant, animal and microbial materials to determine their composition of fat, proteins, carbohydrates, vitamins, trace elements etc. Studies biological fluids and materials such as blood, urine cerebrospinal fluid, lever tissue and hormones and co-relates findings to normal or pathological conditions. Conducts studies for separation and qualitative detection of poison in body for pathological and other purposes. May specialize in a particular field of work.

ISCO 08 Unit Group Details:

Code 2131
Title Biologists, Botanists, Zoologists and Related Professionals

2131.1400

Chemist, Food

Chemist, Food conducts research and analysis concerning chemistry of foods to develop and improve food and beverages. Experiments with natural and synthetic materials or by-products to develop new foods, additives, preservatives, anti-adulteration agents, and related products. Studies effects of various methods of processing, preservation, and packaging on composition and properties of food, such as colour, texture, aroma, taste, shelf life, and nutritive content. Tests food and beverage samples, such as starch, sugar, cereals, beer, canned and dehydrated food products, meats, vegetables, dairy foods, and other products to ensure compliance with food laws, and standards of quality and purity. May perform, or supervise workers performing, quality control tests in food processing, canning, freezing, brewing or distilling.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.1500

Plant Pathologist

Plant Pathologist conducts research on nature and cause of plant diseases and decay of plant products, to evolve methods for their control and prevention. Examines and compares healthy and diseased plants to determine symptoms of diseased condition by means of microscope and other instruments. Inoculates healthy plants with culture of suspected organisms from diseased plants to determine organism responsible for disease. Studies growth, habit and life cycle of disease causing organisms and

devises methods for destroying or controlling it. Tests possible control measures in laboratory and field conditions for effectiveness, economy etc. Observes growth of plant under different conditions of soil, climate, temperature etc. Relates findings of prevention of diseases for use of disease resisting seeds, fumigation or spraying fungicides over stem and leaves for killing fungus, etc. and propagates plant protection methods. May specialize according to type of affected plants on which worked, such as cereal crops, fruit, forest trees etc. or type of diseases, such as bacterial, virus, nematode or fungus.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.1800

Plant Physiologist

Plant Physiologist studies functional activities in living plants and determines factors affecting them. Conducts field and laboratory experiments to determine effects of environmental conditions such as temperature, humidity, light, mineral nutrients etc. on plants. Corrects deficient symptoms in rate of growth, colour of leaves, quantum of yield etc. by administering nutrients such as nitrogen, phosphorus, iron, magnesium sulphur and other chemicals in soil or by folio spraying of plants, or pre-soaking seeds with stimulant prior to planting. Studies effects of environmental conditions on storage life of fruits and vegetables. Studies life history of resistant species of plants and conducts research on physiological problems of Indian plants for land reclamation, sand dune fixation and desert and semi desert conditions,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

metabolism of parasitic plants of India, special excretion of roots which controls plant growth, physiological study of germination of seeds and photoperiodism of Indian plants Prepares and co-ordinates reports of physiological; studies for use by Agronomists, Horticulturists, Plant Breeders and other specialists in a particular field of study such as agriculture crops, forest trees, fruit trees, flowers, fruits, seeds etc.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

2131.9900

Biologists, Botanists, Zoologists and Related Professionals, Other

Biologists, Botanists, Zoologists and Related Professionals, Other include all other biologists and related scientists engaged in research and special fields not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2131

Title Biologists, Botanists, Zoologists and Related Professionals

Family 2132

Farming, Forestry and Fisheries Advisors

Farming, Forestry and Fisheries Advisers study and provide assistance and advice on farm, forestry and fisheries management, including cultivation, fertilization, harvesting, soil erosion and composition, disease prevention, nutrition, crop rotation and marketing. They develop techniques for increasing productivity, and study and develop plans

and policies for land and fisheries management.

2132.0100

Agronomist

Agronomist conducts research in field crop culture; soil fertility and farm management to develop better scientific methods of cultivation and irrigation for securing increased yield and better quality. Studies problems relating to field crop culture. Plans and conducts experiments in fields or plots involving techniques and methods relating to manure, irrigation, sowing, sowing time, culture practices, fertilizer application, physiology of crops and plants, control of weeds etc., taking into consideration chemical and physical composition of soil, temperature, rainfall and regional topography which have direct or indirect bearing on qualitative and quantitative crop yield. Analyses research results and formulates crop rotation, cropping pattern, manuring schedules, water requirements of crops, irrigation practices etc., for improved production. Conducts different physiological experiments on crops in glass houses under controlled conditions of moisture, humidity and temperature and suggests improved agronomical practices for better crop. May look after or advise on storage of produce and farm management.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.0200

Horticulturist

Horticulturist conducts experiments to develop methods of breeding and

cultivating improved varieties of fruits, flowers, vegetables, ornamental bushes, trees etc. Preserves fruits and vegetables and prevents damage during storage, transportation, processing and marketing. Studies soil composition in relation to plant requirements. Conducts experiments under controlled conditions to determine factors beneficial to plant growth. Selects best varieties of seeds for cross-breeding to develop resistant and improved varieties. Develops methods of propagation of plants and maintenance of nurseries. Conducts experiments to develop better methods of sowing, manuring, processing, irrigation and spraying. Carries out experiments for mechanical, biological and chemical pest control. Applies findings to save crops from pests or fungus in fields and stores. Suggests methods for improving quality and increasing quantity of production of vegetables and flowers. May advise regarding location of farms, sowing time, preparation and layout of beds, etc. May arrange flower and vegetable shows. May be engaged in training or research work. May assist on planting of trees in town planning. May be designated as Pomologist, Olericulturist, Floriculturist, Fruit Technologist and Vegetable Technologist etc. according to specialisation in culture of fruits, vegetables and flowers respectively.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.0300

Soil Scientist

Soil Scientist studies soil characteristics, classifies, determines land capabilities and applies findings to problems connected with agriculture, forestry, horticulture and

construction of dams, roads, buildings, etc. Studies genesis and fertility of soil by examining their various layers. Examines particle size and porosity of soil to determine its physical characteristics. Conducts chemical analysis and constitution of inorganic and organic constituents of various soil layers. Conducts experiments to determine micro-biological nutrition in soil for optimum plant growth and recommends appropriate fertilizer doses. Develops methods for control of erosion, alkalinity, salinity, acidity etc. of soil and conducts soil survey and soil classification and indicates them on a map. Investigates problems relating to stabilisation of roads, dams, buildings, etc. May specialize in one or more branches such as Soil Biology, Soil Physics, Soil Chemistry, etc.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.0400

Soil Conservationist

Soil Conservationist specializes in the study of soil for formulating and developing plans to control soil erosion and to maintain and raise soil fertility by correcting soil defects, application of manures and fertilizers, proper crop rotations, reforestation, drainage, etc. Examines soil properties and their characteristics by studying topography and climatic conditions. Investigates magnitude and causes of erosion, such as rainfall and its distribution, drainage, floods etc. Conducts soil consecration surveys. Looks after maintenance of anti-soil erosion, soil structures, bunds, terraces, waste water weir. Introduces measures towards more efficient land managements and higher crop yields.

Develops barren land into productive fields by use of suitable corrective measures for removing salinity and alkalinity of soils or proper drainage conditions. Suggests methods for improvement of pastureland such as enclosures, rotational grazing and reseeding. Suggests proper land use patterns. May do research or training work.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.0500

Silviculturist

Silviculturist conducts research in care and development of forests and evolves more efficient methods of cultivation, propagation and management of forests and utilization of forest products. Studies vital statistics concerning forests, indicating rate of growth, yield and general behaviour of different kinds of trees. Conducts experiments in nurseries, gardens and demonstrations in sample plots regarding seeding time, seed vitality, viability, seed collection, growth increment, plantation methods, natural and artificial regeneration and other items concerning crop replacement; reforestation and development. Conducts research on effects of climate, soil, physiographic and biotic factors upon growth, character and development of forest lands. Determines adaptability of different species to new environmental conditions. Examines composition of different types of forests and investigates relationship between various components of forest community such as trees, climbers, shrubs, herbs, bushes, grasses and various micro-organisms etc. Deals with forest influences on soil, climate as

well as floods and combination of forestry with agricultural and pastoral farming, land management and soil conservation and farming of forest products other than wood. Studies silvicultural characters and requirements of indigenous trees including important exotics and determines factors necessary for their introduction. Suggests suitable species for roadside avenues, canal bank strips, water logged areas and for ornamental purposes etc. Works out standardisation of techniques of field research and analysis of statistical and sample plot data as well as techniques of partial enumeration for estimation of growing stock for working plan purposes. Compiles volume and yield tables for timber by various processes like impregnation with resins, lamination, etc. and examines suitability of indigenous timbers for various purposes, such as furniture making, construction and for specific uses in various industries. Investigates problems connected with seasoning of wood for use as scantlings, sleepers, veneers etc. Designs operation of timber seasoning kilns and studies formation, measurements and removal of drying trees in timber during kiln or air drying. Conducts experiments on samples of timber of different gardens for durability and hardness and to evolve more economic and effective methods of preservation in transit or storage against insects, decay, fire fungi and marine organisms. Develops and suggests improved methods of converting wood into charcoal, veneer, plywood, etc. and for collection, exploitation, utilization of wood by products such as oils, gums, resins, dyes, waxes, fibres, camphor, etc. Develops adhesives from indigenous material like coconut shell, cashew-nuts and conducts experiments to produce building material from bamboo and wood wastes. Maintains xylarium (collection of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

specimens). May specialize in seasoning, preservation, composite wood, chemical wood and mechanical wood.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.0600

Wood Anatomist

Wood Anatomist studies anatomical structure of wood in relation to its properties and uses for identification and classification of different types of timbers and determines factors responsible for growth and development of trees. Examines different types of cells of wood, their arrangement and variation using microscopes to determine its structure. Estimates properties of different types of woods based on their anatomy. Prepares slides and photomicrographs of important indigenous timbers. Explores and collects research anatomical data for writing accurate descriptions, identification and classification of timbers. Investigates defects and causes of failure in wood. Suggests suitable indigenous substitutes for imported timbers for industrial purposes and detects fraud and adulteration by correctly identifying timber and plant products. Maintains collection of specimens and helps Archaeologists, Geologists and Paleobotanists in exploring past vegetation and explains ancient culture.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.0700

Dairy Scientist

Dairy Scientist conducts research in selection, breeding, feeding, and management of dairy cattle: Studies feed requirements of dairy animals and nutritive value of feed materials. Carries out experiments to determine effects of different kinds of feed and environmental conditions on quantity, quality, and nutritive value of milk produced. Develops improved practices in care and management of dairy herds and use of improved buildings and equipment. Studies physiology of reproduction and lactation, and carries out breeding programmes to improve dairy breeds.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.0800

Poultry Scientist

Poultry Scientist conducts research in breeding, feeding, and management of poultry. Examines selection and breeding practices to increase efficiency of production and improve quality of poultry products. Studies nutritional requirements of various classes of poultry. Develops improved practices in incubation, breeding, feeding, rearing, housing, artificial insemination, and disease and parasite prevention and control. Studies effects of management practices and processing methods on quality of eggs and other poultry products. May specialize in artificial insemination.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.0900

Pisciculturist

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Pisciculturist, Fish Culturist; Fishery Expert specializes in fish culture and directs measures connected with development of fisheries and breeding and rearing of fish by artificial methods. Conducts experiments on fish culture to obtain data concerning their habits migration, growth, food, enemies, places of breeding and spawning so that conditions of artificial hatching may be made to closely resemble those of natural hatching. Devises methods and directs work of collecting, fertilizing and incubating fish eggs. Supervises care of spawn and directs rearing of fish. Supervises sorting, transferring, distribution and release of seeds, fingerlings etc. in streams, ponds and wells for restocking them. Directs constructions of reservoirs, ponds, dams etc. and supervises general maintenance of hatcheries. May specialize in fresh water or salt-water fish culture. May supervise catching of fish preservation or marketing. May cultivate oysters in specially prepared oyster see-beds, observe growth of pearl oyster and chanks and introduce artificial process for pearl formation. May supervise works of Divers.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

2132.1000

Farm Overseer, Crop Production

Farm Overseer, Crop Production supervises operations in connection with growing, harvesting and marketing of agricultural produce, fruits, etc., Maintains machinery, implements and live-stock under directions of Manager, Agricultural Farm. Assists manager in examining soil, irrigational facilities, marketing, etc. in determining type of

fruit or crop to be grown. Helps in selection and purchase of seeds, fertilisers and equipment and storing them. Guides operations of ploughing, manuring, sowing, watering, weeding and hoeing. Supervises making of channels for irrigation, preparing manure, grafting and budding of plants, harvesting, threshing, winnowing, etc. Looks after bagging, storing and transportation of produce to market. Controls field staff. Assists Manager in preparation of cost and production statements, payment of wages, etc. and attends to any other task assigned by him. May specialize in growing any particular type of crop or fruit. May demonstrate improved methods of cultivation.

ISCO 08 Unit Group Details:

Code 2133

Title Farming, Forestry and Fisheries

2132.9900

Agronomists and Related Professionals, Other

Agronomists and Related Professionals, Other include all other Agronomists and related Scientists engaged in research in particular fields for practical application of results thereof, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2132

Title Farming, Forestry and Fisheries

Family 2133 Environmental Protection Professionals

Environmental Protection Professionals study and assess the effects of human activity on environment such as air, water and noise pollution, soil contamination,

climate change, toxic waste and depletion and degradation of natural resources. They develop plans and solutions to protect, conserve, restore, minimize and prevent further damage to the environment.

2133.0100

Ecologist

Ecologist studies effects of environmental influence of growth, development, distribution etc. of plant or animal life. Undertakes field trips to study plants or animals in their natural habitat. Observes environmental influence, such as temperature, rainfall, altitude, type and quantity of food etc. and their effects on plant or animal growth and development. Classifies or catalogues drought resistant areas and type of fodder and pastures suitable for those areas. Propagates or introduces special varieties of plants, grass, weed etc. to suit local climatic conditions. Runs experimental farms or laboratories under natural and artificial conditions to watch effect of climatic condition on crops, plants or animals. Studies geographical distribution of different species and genera of Indian flora and role of plants as indication of special types of soil and chemicals. Conducts research on suitable plants from different parts of India or from similar climates outside India for regeneration of swamps and deserts. Is designated as PLANT ECOLOGIST or ANIMAL ECOLOGIST according to field of specialization.

ISCO 08 Unit Group Details:

Code 2133

Title Environmental Protection
Professionals

2133.0200

Environment Scientist (Including Health)

Environment Scientist (Including Health) conducts research or performs investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of population. Utilising knowledge of various scientific disciplines may collect, synthesize, study, report, and take action based on data derived from measurements or observations of air, food, soil, water, and other sources. Analyses data to determine validity, quality, and scientific significance, and to interpret correlations between human activities and environmental effects. Collects, synthesises, and analyses data derived from pollution emission measurements, atmospheric monitoring, meteorological and mineralogical information, and soil or water samples. Conducts environmental audits and inspections, and investigations of violations. Designs and directs studies to obtain technical environmental information about planned projects. Determines data collection methods to be employed in research projects and surveys. Develops methods to minimize the impact of production processes on environment, based on the study and assessment of industrial production, environmental legislation, and physical, biological, and social environments. Evaluates violations or problems discovered during inspections to determine appropriate regulatory actions or to provide advice on the development and prosecution of regulatory cases. Investigates and reports on accidents affecting the environment. Monitors effects of pollution and land degradation, and recommends means of prevention or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

control. Monitors environmental impacts of development activities.

ISCO 08 Unit Group Details:

Code 2133
Title Environmental Protection Professionals

2133.0300

Taxonomist

Taxonomist, studies, identifies and classifies plants and animals under standard nomenclatures. Undertakes excursions and field trips to collect various kinds of animals or plants with roots, flowers, fruits etc. as necessary. Studies, dissects and mounts slides for examination. Examines slides and minute parts under microscope and relates findings for correct identification of parts and classifies them giving standard nomenclature indicating genus and species they belong to. Preserves specimens in special preservatives or in herbarium sheets as appropriate. May specialize in particular field and be designated as TAXONOMIST, ANIMAL or TAXONOMIST, PLANT according to field of study.

ISCO 08 Unit Group Details:

Code 2133
Title Environmental Protection Professionals

2133.0400

Paleobotanist

Paleobotanist, studies fossilized remains of plants found in geological formations to trace evolution and development of past life and identify geological formations according to nature and chronology. Undertakes field trips and recovers

fossilised specimens from dug out layers of earth or rock and notes their positions. Assembles and studies specimens using microscope, chemicals, photographic methods and other scientific aids. Identifies and classifies specimens according to botanical family, probable age, etc. Makes statistical analysis and constructs experimental data to trace history of modern vegetation or to locate natural resources such as petroleum bearing formations and prepares reports on findings. May organize scientific expeditions and supervise removal of fossils from fossil deposits and material rock formations. May specialize in Geochronology (General history of earth), Coal Paleobotany, oil Paleobotany etc.

ISCO 08 Unit Group Details:

Code 2133
Title Environmental Protection Professionals

Group 214

Engineering Professionals (excluding Electro technology)

Engineering Professionals (excluding Electro-technology) design, plan and organize the testing, construction, installation and maintenance of structures, machines and their components, and production systems and plants, and plan production schedules and work procedures to ensure engineering projects are undertaken safely, efficiently and in a cost effective manner.

Occupations in this Group are classified into the following Families:

2141 Industrial and Production Engineers
2142 Civil Engineers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2143	Environmental Engineers
2144	Mechanical Engineers
2145	Chemical Engineers
2146	Mining Engineers, Metallurgists and Related Professionals
2149	Engineering Professionals, Not Elsewhere Classified

Family 2141 Industrial and Production Engineers

Industrial and Production Engineers conduct research and design, organize and oversee the construction, operation and maintenance of process plants and installations. They establish programmes for the co-ordination of manufacturing activities; and assess cost effectiveness and safety.

2141.0100 Works Inspector, Engineering/Inspection Engineer

Works Inspector, Engineering; inspects and tests raw materials and finished products in factory or institution, using various testing and measuring equipment and ensures that raw materials and finished goods conform to specified standards. Conducts physical tests of raw materials and gets it chemically tested by Chemists to see that it conforms to prescribed standards of quality and quantity. Rejects materials not conforming to required specification. Carries out stage inspection of finished and semi-finished goods. Enforces quality control methods in load test, durability, flexibility, hardness and other tests depending upon value of components or goods and importance of products. Supervises and controls production work to keep percentage of rejection at

minimum. Stops operations when percentage of rejection is high and informs superiors for rectification of machines or tools. Maintains record of work indicating type of product checked, percentage of rejections, reasons for rejection etc. Certifies passed articles or goods conforming to prescribed standards. Is designated as Boiler Inspector if engaged in inspecting boilers or ensuring production of boilers to required specifications. May specialize in particular types of components or products.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.0200 Instrument Engineer/Instrumentation Engineer

Instrument Engineer, designs and supervises operation and maintenance of electrical, mechanical and thermal instruments and control equipment necessary for safe and efficient operation of industrial plants. Studies plant layout and process requirements to determine type and number of items needed; writes specifications for selection of stock or special instruments from supplies. Directs installation, calibration, and testing of equipment. Supervises application, inspection, and maintenance of instruments in operation.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.0300

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Industrial Engineer

Industrial Engineer performs variety of engineering work in planning and overseeing utilisation of production facilities and personnel in development or other sub-division of industrial establishment. Studies and plans equipment layout, work flow, and accident prevention measures to maintain efficient and safe utilisation of plant facilities. Plans and supervises work study and training programmes to promote efficient manpower utilisation. Develops and ensures quality control, cost control, inventory control, and production record systems. May study manner in which particular tasks are performed and suggests improved methods. May work independently as consultant to any organization needing advice and assistance.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.0301

Industrial Engineer Executive

Industrial Engineer is responsible for determining most effective ways to create a product or service in sewing line. Their work includes analysis of the sewing method and process, machine and supervision of production floor for efficiency improvement.

Qualification Pack Details:

QP NOS Reference	AMH/Q2001
QP NOS Name	Industrial Engineer
	(IE) Executive
NSQF Level	6

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.0400

Packaging Engineer

Packaging Engineer plans and directs activities concerned with design and development of protective packaging containers. Analyses engineering drawings and specifications of products to determine physical characteristics of items, special-handling and safety requirements, and type of materials required for container. Consults with establishments' purchasing and production departments to determine costs and feasibility of producing proposed packaging. Develops or directs development of sketches, specifications, samples, and written analysis of proposed packaging in order to present design for approval. May confer with customers or sales representatives to draw up contracts. May advise employer or customers on efficient packing procedures, innovations in packaging materials, and utilization of sealing and fastening devices.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.0500

Planning Engineer

Planning Engineer, Development Engineer plans and directs activities for increasing operational efficiency in production of articles using appropriate machines at a lesser cost. Studies work orders,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

availability of raw materials, production methods and production capacity of machines. Examines plans, sketches, diagrams etc. of articles to be produced and decides on type of machine to be used and sequence of production operations. Assesses and arranges quantum of raw materials required for production of articles. Arranges the layout of plants. Decides use of special tools or equipment to ensure quick and continuity of work operations. Prepares work schedules and instructs section heads to complete work orders. Co-ordinates work of different sections and eliminates delays or removes difficulties. Supervises work of subordinates and ensures that finished products conform to prescribed standard and specifications, and are turned out within time targets. Adjusts work load of men and machines to achieve optimum results. May supervise construction and erection of machines and equipment.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.0501

Production Planning & Control Engineer

Production Planning and Control (PPC) Engineer is also called, 'Production Planner'. The PPC Engineer prepares a weekly or monthly manufacturing plan based on interaction with the production, sales and marketing team of the organization. The individual at work receives monthly demand data from the sales team. Based on the demand data, the PPC Engineer plans procurement of raw material and production schedules for the month.

Qualification Pack Details:

QP NOS Reference	ELE/Q6201
QP NOS Name	PPC Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.0600

Methods Engineer

Methods Engineer plans sequences of operations to be followed for manufacture of articles. Examines blueprints, sketches, and specifications of products to be made. Lays out steps to be followed in the process, using knowledge of materials, machine operations, plant layout and mathematics to select least expensive and most efficient production methods. Specifies machines and kinds of cutting tools and set ups to be used. Writes technical reports. May co-ordinate activities with design, production and other departmental personnel.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.0800

Engineering Estimator/Estimation Engineer

Engineering Estimator prepares cost and work completion estimates for engineering works. Compiles itemized materials and price lists from blueprints and specializations and itemizes equipment readily available or to be purchased from outside sources.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Computes cost and estimates of raw material, purchased equipment and labour required for work and decides delivery dates. Keeps in touch with market conditions regarding price of commodities, raw materials, fluctuations in prices, labour hiring charges etc. May compute percentage profits and add to cost estimates. May consult with engineering departments concerning cost problems.

ISCO 08 Unit Group Details:

Code 2141

Title Industrial and Production Engineers

2141.0900

Agricultural Engineer

Agricultural Engineer, applies engineering principles to solve related agricultural problems. Designs, develops and supervises manufacturing of agricultural machinery, such as pumps and irrigation equipment, tractors, cultivators, sprayers, dusters and harvesters. Lays out and supervises construction of farm buildings and utilities, crop processing plants and rural electric power distribution systems. Conserves soil and water by installation of irrigation, drainage, flood and soil erosion control systems. May specialize in such fields as farm management, pest control, rural roads and farm fire protection.

ISCO 08 Unit Group Details:

Code 2141

Title Industrial and Production Engineers

2141.1000

Textile Technologist

Textile Technologist conducts research in chemistry of textiles and institutes methods to control processes for scouring, bleaching, mercerising, sizing, and dyeing textiles. Prepares formulae for various phases of processing. Controls variables, such as temperature, sequence of operation, and concentration of chemicals, for treatment of silk, cotton, wool, rayon, and other fabrics during processing. Experiments with synthetic and re-generated fibres, animal hair, feathers, cellulose products, and other materials to develop new textiles. Investigates problems relating to textile chemistry, such as treatment of fabrics to impart water, fire, mildew, or insect resistant qualities, to reduce fabric shrinkage, or to develop qualities of shape retention and abrasion resistance in textile. May analyse dyes, alkalis, acids, bleaches, and finishes for conformance to specifications. May design, erect and patent new textile machinery.

ISCO 08 Unit Group Details:

Code 2141

Title Industrial and Production Engineers

2141.1100

Nuclear Engineer

Nuclear Engineer conducts research into problems of nuclear energy systems. Designs and develops nuclear equipment and monitors testing, operation, and maintenance of nuclear reactors.: Plans and conducts nuclear research to discover facts or to test, prove, or modify known nuclear theories concerning release, control, and utilisation of nuclear energy. Evaluates findings to develop new concepts of thermonuclear analysis and new uses of radioactive processes. Plans, designs, and develops nuclear equipment

such as reactor cores, radiation shielding, and associated instrumentation and control mechanisms. Studies nuclear fuel cycle to define most economical uses of nuclear material and safest means of waste products disposal. Monitors nuclear tests and examines operations of facilities which process or utilize radioactive or fissionable material to ensure efficient functioning and conformance with safety specifications, regulations, and laws. Prepares technical reports, utilising knowledge obtained during research and development activities and inspectional functions. May direct operating and maintenance activities of operational nuclear facilities.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.1200

Jute Technologist

Jute Technologist conducts research and improves standards and quality of jute fibre and jute products. Carries out research in physical, chemical and testing laboratories and suggests measures for increasing agricultural yield of jute by scientific sowing, rearing and harvesting. Devises better facilities for separating fibre from plant stem and protecting jute crops from pests and diseases. Identifies various chemical components and compositions of fibre structure; checks chemical reaction on fibre to modify or change its original chemical properties and characteristics, improves and produces fibre of better quality with increased stiffness, toughness, rigidity and resilience. Evolves tests and develops new processing techniques and equipment,

and supervises their proper installation and maintenance.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.1300

Fibre Technologist

Fibre Technologist conducts research in extraction and utilisation of vegetable (animal or synthetic) fibres such as jute, moonj, ganja, etc., and develops techniques for spinning and weaving of fibres, and for pulping fibre for making utility goods, like paper, card-board and allied materials. Sets raw material for decomposition by bacterial action to identify fibre. Conducts physical and chemical tests for identification of fibre and fibre damage and also to assess presence of non-fibrous impurities and content of hygroscopic nature, tensile strength, elasticity, elongation, staple length, frictional characteristics, fineness, diameter etc. of fibre. Supervises workers engaged in extraction and processing and guides and trains them on proper lines. May find substitute for rare fibres and direct adulteration. May mix together various fibres to form ultimate product by chemical and microscopic examination.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.1400

Spinning Master

Spinning Master organizes, controls and supervises various processes in spinning

yarn from various fibres, such as wool, jute, cotton etc. Directs mixing and blending of different grades of fibre to produce yarn of required quality. Supervises cleaning, carding and combing of fibre and drawing spinning of yarn. Ensures that required degree of temperature and humidity in various spinning sections is maintained. Visits spinning sections constantly to check continuity of operations. Gets machines repaired or replaced for restoration of work. Controls staff and ensures that quantity and quality of production are maintained. Keeps machinery and equipment in good working order for optimum efficiency. May advise management to introduce new methods or devices to improve quality and quantity of yarn production. May conduct research to evolve better methods of production.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.1500

Weaving Master

Weaving Master organizes, controls and supervises weaving of clothes, calendering and process preparatory to weaving such as winding, warping, sizing, etc. Instructs Jobbers for proper winding, warping and sizing of yarn. Ensures that required degree of temperature and humidity in various weaving sections is maintained. Visits sections periodically and supervises work of men in charge. Ensures that quality of cloth produced conforms to prescribed standard and suggests alterations and improvements wherever necessary. Gets machines repaired or replaced as necessary for restoration of work. Maintains quality and quantity of

production and keeps machines, looms and equipment in good working order. Controls staff and maintains discipline. May introduce new methods and devices to improve quality of cloth. May conduct research for better methods of production.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.1600

Dyeing and Bleaching Master (Textiles)

Dyeing and Bleaching Master, (Textile) organizes, controls and supervises dyeing and bleaching of yarn and cloth. Controls costing of all incidental processing of dyeing, bleaching etc. and determines dyes and their proportions for dyeing yarn and cloth to required colour and shade. Supervises mixing of dyes according to predetermined formula, and its heating to required temperature. Tests sample of dye solution on textiles to get desired colour and shade. Visits sections periodically and supervises various operations, such as bleaching of yarn or cloth in kier, washing and dyeing them in special dyeing machines and ensures quality of production. Tests sample of dyed cloth in laboratory to check fastness of colour, etc. Maintains machines and equipment in perfect working condition. Keeps record of batches of colours mixed, quantity of yarn and cloth bleached and dyed etc. May specialize in processes of dyeing or in bleaching of yarn and cloth and be designated as Dyeing Master or Bleaching Master according to nature of work performed. May conduct research for evolving better methods of production and different colour combinations. May train new workers in the department.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.1700

Printing Master (Textile)

Printing Masters (Textile) organize, direct and supervise printing of cloth in various designs ensuring quality, output and smooth running of printing department. Arrange for supply of necessary chemicals and dyes. Check mixing of colours in required proportions for printing purpose. Examine printed sample to check its quality and carries out chemical tests to ensure its fastness. Ensure regular supply or required quantity of cloth for printing in their department. Get printing rollers with required engraving of pattern fitted in printing machines. Supervises work of Printers, Textile to ensure quality output. Maintains record of job orders completed, and batches of colours used. May check operations of printing machines to ensure optimum output and may make arrangements for repair of defects in machines or replacements of parts.

NATIONAL CLASSIFICATION OF OCCUPATIONS.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.1800

Sugar Technologist

Sugar Technologist conducts research and devises improved methods and processes for manufacture of high quality sugar and other by-products such as molasses,

power alcohol etc. Studies physical and chemical properties of raw cane-juice, conducts alkaline and acidity test of juice, and determines type of equipment needed for boiling juice, and quantity of lime or sulphur to be added in the chemical process. Sets up a pilot plant and studies its working under given conditions. Designs or manufactures latest machinery and equipment or suggests changes or alterations to existing machinery or equipment. Studies corrosive actions on metals, formation of scales on pans, loss of heat to pans etc. and suggests use of proper metal to eliminate corrosion on metal for increased production. Tests and examines various by-products and advises on their maximum utilisation or conversion into commercial products such as making alcohol from molasses, commercial, cylindering of gases like Oxygen, Carbon dioxide, etc. Supervises erection of plants and renders guidance in set up.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.1900

Dairy Technologist

Dairy Technologist applies principles of bacteriology, chemistry, physics, engineering and economics to develop new and improved methods in production, preservation, and utilisation of milk, cheese, ice cream, and other dairy products. Conducts experiments in such problems as preventing bacterial increase in milk during handling and processing, improving pasteurisation methods, and designing better packaging materials, dairy equipment, or supplies. May specialize according to product, as ice

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

cream or cheese, or according to functional activity, as sanitation research or storage problems.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.2000 Wood Technologist

Wood Technologist conducts experiments and investigates problems connected with seasoning, preservation and utilisation of timber and its by-products and evolves methods for curing timber, testing it for strength, converting it into charcoal, plywood, etc. Studies physical properties of wood such as hardness, pliability, moisture, shrinkage, stress during drying, etc. Devices scientific and economical methods of improving properties of ready use, maintains ledger files, containing collection of tropical and other forestry literature and gives technical advice to interested parties on matters connected with the subject. May co-ordinate procurement and supply of seeds of various species between agencies concerned. May co-ordinate activities of different state units, for promoting mensuration research all over the country. May study different types of soil erosion, its causes and determine suitable preventive remedial measures. May impart advance training on subjects to State Forest Officers and students of Forest College and maintain the Silviculture museum.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.2100 Leather Technologist

Leather Technologist conducts research for developing tanning processes for manufacture of leather, conforming to prescribed standards. Examines hides and skins for structural defects. Studies preservative methods practiced by Tanners and suggests improvement in existing methods of preservation and drying for making better leather. Evolves new method of vegetable and chrome tanning of skins, hides, sole leathers, etc. to reduce cost of tanning. Analyses various chemicals such as salts, dyes, oils and other chrome compounds used in leather industry to determine properties. Tests tanned and finished leather at every stage for conformity to prescribed standards of quality. Conducts research on utilisation of by-products, treatment of obnoxious odours and tannery effluents, use of waste products for manufacture of leather boards, gut and surgical sutures, gelatine etc. Plans, designs and installs new equipment and machines. Demonstrates correct and economical methods of vegetable or chrome tanning of leather and skins, use of machine and manufacture of industrial and fancy leather to guide Tanners. May specialize in particular branches of study like vegetable or chrome tanning, utilisation of by-products, manufacture of industrial or fancy leathers, sports goods leather, garments leather, dyeing and finishing of leather etc.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.2200 Glass Technologist

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Glass Technologist conducts experiments in chemistry of glass and develops and controls processes involved in manufacture of glass products. Devises and installs laboratory and batch-control systems. Selects formulae to be used in compounding standard type of glass and develops new formulae to produce special purpose glass such as optical glass, glass oven-wear, or coloured glass products. Directs activities of operating crew engaged in compounding ingredients and charging melting furnaces. Ascertains furnace temperature periodically and makes necessary temperature adjustments. Determines characteristics of glass samples by subjecting them to chemical and physical tests.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.2300 Ceramic Technologist

Ceramic Technologist conducts research, develops processing techniques and supervises technical work concerned with manufacture of ceramics products. Supervises testing of physical, chemical and heat-resisting properties of materials such as clays and silica. Analyses result of test to determine combinations of materials which will include quality of products. Conducts research into methods of processing, forming and firing of clays to develop new ceramic products, such as refractories for air craft, and for using glass and steel furnaces. Designs equipment and apparatus for forming, firing and handling products. Co-ordinates testing activities of finished products for characteristics, such as texture, colour,

durability, blazing and refactoring properties. May specialize in any branch of ceramic production, such as brick, glass, crockery, tile, pipe or refractories. May specialize in developing heat-resistant and corrosion-resistant material for use in nuclear energy field.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.2400 Printing Technologist

Printing Technologist conducts research and develops better and economical printing processes for use in printing industry. Evolves processes of letterpress printing, off-set printing (lithography), gravure printing (reserve of letter printing), and screen printing. Conducts research for utilizing electronic and magnetic devices in printing processes e.g. composing, electro typing, stereo typing, photo composition, photo engraving, oil-type composition. Develops rapid and accurate methods of composing matter; evolves better and economical processes of printing to serve different printing purposes or specific processes. Experiments with different links, papers and machines to improve ultimate printed matter. May supervise printing processes in printing press.

ISCO 08 Unit Group Details:

Code 2141
Title Industrial and Production Engineers

2141.2500 Safety Engineer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Safety Engineer inspects industrial plants for hazards, suggests measures preventing or reducing industrial accidents for diseases, or for correcting other injurious environmental conditions which creates hazards to life and property or reduce workers' morale and efficiency. Examines plans and specifications of new premises, plant or equipment and ensures that adequate precautions have been taken to avoid hazards. Inspects buildings, equipment and processes to locate hazardous work places, determines amount of weights that can be placed on plant floor with safety and advises on selection and use of goggles, safety belts, protective clothing, extractor fans, ventilators and similar safety equipment. Inspects fire-fighting equipment and advises on preparations to be taken against risk of fire. Designs and supervises manufacture and installation of machine guards and other devices to prevent accidents. Investigates cause of accidents and introduces measures to prevent their recurrence. Plans, organizes and carries out educational programmes on accident prevention, using lectures, products, films and other means.

ISCO 08 Unit Group Details:

Code 2141

Title Industrial and Production Engineers

2141.2600

Occupational Health and Safety Specialist

Occupational Health and Safety Specialist reviews, evaluates, and analyses work environments and design programmes and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents

or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector. Investigates adequacy of ventilation, exhaust equipment, lighting, and other conditions which may affect employee health, comfort or efficiency. Conducts evaluations of exposure to ionizing and nonionizing radiation and to noise. Collects samples of dust, gases, vapours, and other potentially toxic materials for analysis. Recommends measures to ensure maximum employee protection. Collaborates with engineers and physicians to institute control and remedial measures for hazardous and potentially hazardous conditions of equipment. Participates in educational meetings to instruct employees in matters pertaining to occupational health and prevention of accidents. Prepares reports including observations, analysis of contaminants, and recommendation for control and correction of hazards. Reviews physicians' reports and conducts worker studies to determine if diseases or illnesses are job related. Prepares and calibrates equipment used to collect and analyse samples. Prepares documents to be used in legal proceedings and gives testimony in court proceedings.

ISCO 08 Unit Group Details:

Code 2141

Title Industrial and Production Engineers

Family 2142

Civil Engineers

Civil Engineers conduct research, advice on design, and direct construction; manage the operation and maintenance of civil engineering structures; or study

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and advise on technological aspects of particular materials.

2142.0100 Civil Engineer, General

Civil Engineer, General plans, organizes and supervises construction and repair of buildings, highways, dams, bridges, tunnels, canals, aerodromes, towers, laying of pipe lines, railway tracks etc. with or without assistance of Architect or other specialized Civil Engineers. Prepares or gets sketches, plans etc. of project prepared by Architect according to the requirements of the authority concerned. Visits area(s) for preliminary survey, selection of size, and collection of necessary data such as measurements, soil condition, availability of materials, labour etc. with or without assistance of specialized Civil Engineers, Overseer and Estimator. Prepares designs, detailed drawings and estimates of cost with assistance of Draftsmen, Civil or themselves and gets them approved by their client or authority concerned. Arranges for required materials, machinery, labour and commencement of work at site. Ensures correct execution of work according to specifications at every stage of progress. Checks at site, measurements taken by overseer for preparation and payments of bill. Inspects and examines structure, completion of work to ensure its conformity with prescribed specification. May draw sketches and plans. May call for tenders and award work to one or more contractors. May undertake maintenance, development or remodelling work.

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0200 Civil Engineer, Building

Civil Engineer, Building plans, organizes and supervises construction and repair of buildings etc. for office or residential purposes with or without assistance of the Architect. Visits sites to ascertain soil condition, availability of labour, materials, etc. and decides type of structure to be built, and materials to be used. Prepares detailed drawings and estimates according to requirements of authority concerned with assistance of Draftsmen, Civil and Estimators; lays specifications of various components finishing, flooring and architectural features or gets them done by Architects. Arranges materials, labour, machinery etc. Gets concrete cured (sprayed with water) and gets cubes tested in laboratory as work progresses to ensure design strength. Gets roofing, flooring, terracing and distempering or white-colour washing done according to specification. Checks measurements carried out by Overseer from time to time for payment of bills. May call for tenders and award work to one or more contractors. NATIONAL CLASSIFICATION OF OCCUPATIONS

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0300 Civil Engineer, Structural

Civil Engineer, Structural plans, organizes and supervises construction and repairs of bridges, factories, towers and other structures to meet specific requirements with assistance of Civil Engineer, Building; Mechanical Engineer, Structural; Draftsmen, Civil; Estimator, etc. as necessary. Receives instructions and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

available sketches and data from authority concerned. Undertakes preliminary survey to collect necessary information about soil condition, area available etc. Collects further information on drainage, maximum water level, flow of water, neighbouring habitation, permanent course of water, pressure of communication etc. required for bridge construction. Calculates and prepares or gets it prepared by Architect or Draftsman design details on estimated cost and detailed drawings with complete specifications of trusses, foundation, height, movement space, light and ventilation etc. and gets them approved by client. Supervises drilling operations and gets samples of underground geological strata tested to divide suitable type of foundation and length of spans for bridge construction. Arranges for men, material, machinery and appliances. Gets work commenced on scheduled plan under their direct or authorised supervision. Gets coffer dam, dewatering, dredging, well foundation and concreting done and tiers and abatement constructed over the foundation. Gets sub and superstructure of bridge, factory building, or other structure constructed by stages according to design in consultation with Mechanical Engineer, Structural; Civil Engineer, Building; etc., as necessary. Ensures execution according to specifications and directs preparation and payment of bills. May invite tenders and get part or parts of work done by contractors or other specialized persons. May undertake construction of staff quarters, approach roads, etc., if required.

ISCO 08 Unit Group Details:

Code 2142
Title Civil
Engineers

2142.0301 **Plumbing Site Engineer**

Plumbing Site Engineer is responsible for carrying out technical, organizational and supervisory role in plumbing construction projects.

Qualification Pack Details:

QP NOS Reference	PSC/Q0115
QP NOS Name	Plumbing Site Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code 2142
Title Civil Engineers

2142.0400 **Civil Engineer, Irrigation**

Civil Engineer, Irrigation plans, organizes and supervises construction and maintenance of dams, barrages, canals, tunnels etc. with assistance of Geologist and other engineers where necessary. Visits site to collect necessary data such as course of water, topography, nearby villages, agricultural lands, availability of labourers, materials etc. Selects suitable site in consultation with Geologist. Draws out preliminary sketches and detailed drawings and general financial implications, estimate of materials, required machinery etc. with assistance of Draftsman, Civil and Estimator. Arranges for material, labour and machinery. Gets cofferdams or other devices for diverting water constructed and gets dewatering and excavation work commenced. Supervises laying of concrete in foundation, construction of other concrete or masonry work and digging of canals. Controls quality of concrete by getting cubes tested at every stage of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

construction. Gets sluice gates erected, in case of barrage, with assistance of Mechanical and Civil Engineer, Structural. Gets pipe line of power house laid and machinery installed with assistance of Mechanical and Electrical Engineer. Checks work to ensure conformity with specifications. May call tenders and award work to Contractors. May also undertake construction of staff quarters, office buildings, approach roads etc.

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0500

Hydraulic Engineer

Hydraulic Engineer designs and directs construction of power and other hydraulic engineering projects for control and use of water. Computes and estimates rates of water flow. Specifies type and size of equipment, such as conduits, pumps, turbines, pressure valves, and surge tanks, used in transporting water and converting waterpower into electricity. Directs, through subordinate supervisors, activities of workers engaged in dredging, digging cut-offs, placing jetties, and constructing levees to stabilise streams or open water ways. Designs and co-ordinates construction of artificial canals, conduits, and mains to transport and distribute water, and plans reservoirs, pressure valves, and booster stations to obtain proper water pressure at all levels. Frequently builds laboratory models to study construction and flow problems.

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0501

Fire Protection Systems Design Engineer

Fire Protection Systems Design Engineer is responsible for the design of a hydraulic fire-fighting system in a building or structure.

Qualification Pack Details:

QP NOS Reference	PSC/Q0205
QP NOS Name	Fire Protection Systems Design Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0600

Civil Engineer, Highways and Roads

Civil Engineer, Highways and Roads plans, organizes and supervises construction and repair of roads, as well as culverts and bridges to connect cities, towns and important places within the town. Undertakes reconnaissance and topographical surveys to gather information regarding villages, towns and cities to be connected, river, nullah and railway crossings in route, soil data etc. to decide suitable route for road construction. Prepares or gets prepared by Draftsman Civil detailed drawing with complete specifications such as width of road, foundation, drainage system, bridges culverts etc. Arranges for labour, machinery and materials and commences work under their direct or authorised supervision. Constructs culverts and bridges in route or entrusts them to Civil Engineer, Structural. Checks work from time to time to ensure proper consolidation of earth work and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

prevention of sinking of roads. Checks measurements taken by Overseer (Civil) for payment of bill. Inspects completed work and hands over completed project to the client. May invite tenders and assign road construction to approved Contractors. May maintain road making machinery like road rollers, concrete mixers, etc. in working order. May arrange road side plantation and their maintenance.

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0700

Civil Engineer, Railways

Civil Engineer, Railways plans, organizes and supervises maintenance and laying of railway tracks, and construction of bridges, roads, buildings, sheds etc. for railways according to prescribed specifications. Surveys area(s) with assistance of Surveyors to collect necessary details such as soil condition, rivers, drains, course of water, localities and villages in route, etc. Designs work on basis of collected data, estimates cost and submits them to authority concerned for approval. Prepares or gets detailed drawings prepared by Architect and plans execution of work. Arranges for labour, material, machinery, appliances etc. and commences work under their personal or authorised supervision. Gets embankment consolidated, levelled and ballasted. Gets sleepers and rails laid in position and fish plates screwed to join rails. Inspects track during and after construction to ensure conformity of gradients, inclinations etc. with prescribed standards. Supervises construction, repair and maintenance of buildings, railway stations, bridges, platforms and other railway structures by

performing similar functions as those of Civil Engineer, Building, Civil Engineer, Structural, etc. Takes special safety measures to protect track and bridges during floods and landslides, etc. May construct tunnels and lay tracks through them. May invite tenders and allot work to approved Contractors.

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0800

Airport Engineer

Airport Engineer plans and lays out airports and landing fields and directs construction work involved in levelling fields, laying out and surfacing runways, and providing drainage. Designs runways based on weight and size of aircraft and prepares material and construction specifications. Directs or participates in surveying to lay out installations and establish reference points, grades, and elevations to guide construction. Estimates costs to provide basis for payments to contractor. Observes progress of construction to ensure work is in conformity with specifications and advises SUPERINTENDENT, CONSTRUCTION regarding necessary corrections. May serve as an employee of the contractor and study plans and specifications to recommend special equipment or procedures to reduce time and cost of construction. May schedule delivery of materials, analyse costs, and provide technical advice for the solution of construction problems.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0900

Civil Engineer, Public Health

Civil Engineer, Public Health plans, organizes and supervises installing of water supply, pipelines and accessories and construction of drains, sewers and other sanitary workers in Municipal Corporation, township or specified area(s). Visits site to conduct topographical survey with assistance of Surveyor to collect necessary information such as source of water, drains, localities, and villages etc. in route. Designs and prepares drawings and estimates of project ensuring scope for future development. Arranges for labour, machinery and materials. Starts digging of respective areas for drainage or embedment of pipes under their personal or authorised supervision. Gets culverts, sewers, sewage plants, pump houses, cannels, and reservoirs etc. constructed. Ensures correct execution of work according to specifications at every stage of progress. Checks at site, measurements taken by Overseer for preparation and payment of bills. May undertake removal of silt, construction of approach road etc., if required. May invite tenders and award work to Contractors.

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.0901

Public Health System Design Engineer

Public Health Systems Design Engineer is responsible for design of public health systems in a/city or township.

Qualification Pack Details:

QP NOS Reference PSC/Q0206

QP NOS Name Public Health
System Design
Engineer

NSQF Level 8

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.1000

Engineer, Waterworks

Engineer, Waterworks plans and directs activities concerned with water utility systems installation, operation, maintenance, and service. Directs activities of Engineers engaged in preparing designs and plans to construct, enlarge, and modify such facilities as water treatment plants, watersheds, and dams, hydroelectric stations, pumping stations, and to install water mains, and other appurtenances. Provides engineering and technical direction for planning and designing of water utility projects. Reviews plans and specifications prior to instituting projects to ensure that they meet organizational requirements. Analyses and compiles data received from engineers to prepare budget estimates. Directs and co-ordinates with engineers in conducting studies, such as economics of systems operation, water distribution, and water treatment plants or relative equipment performance to determine most feasible approach to overcome organizational and technical problems. Confers with municipal authorities concerning budget requirements, changes in organizational policies, regulation of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

water rates and plumbing requirements or other problems affecting the community.

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.1001

Ground Water Engineer

Groundwater Engineer is responsible for designing groundwater extracting and recharging systems such as bore wells, etc. in a region.

Qualification Pack Details:

QP NOS Reference PSC/Q0202

QP NOS Name Ground Water
Engineer

NSQF Level 7

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.1002

Waste Water Systems Design Engineer

Wastewater Systems Design Engineer is responsible for design of wastewater/or sewerage systems of a city, township or large housing/commercial/institutional setups.

Qualification Pack Details:

QP NOS Reference PSC/Q0207

QP NOS Name Waste Water
Systems Design

NSQF Level 8

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

2142.9900

Civil Engineers, other

Civil Engineers, Other specialize in designing, constructing and maintaining other civil engineering works such as those engaged in designing and constructing docks, harbours, light houses, aerodromes, runways, etc. and include those specialists not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2142

Title Civil Engineers

Family 2143

Environmental Engineers

Environmental Engineers conduct research, advise on design and direct implementation of solutions to prevent, control or remedy of negative impacts of human activity on the environment utilizing a variety of engineering disciplines. They conduct environmental assessments of construction and civil engineering projects and apply engineering principles for pollution control, recycling and waste disposal.

2143.0100

Solar Energy System Designer

Solar-Energy-Systems Designer designs solar domestic hot water and space heating systems for new and existing structures, applying knowledge of energy requirements of structure, local climatological conditions, solar technology, and thermodynamics. Estimates energy requirements of new or existing structures, based on analysis of utility bills of structure, calculations of thermal efficiency of structure, and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

prevailing climatic conditions. Determines type of solar power system, such as water, glycol, or silicone, which functions most efficiently under prevailing climatic conditions. Calculates on-site heat generating capacity of different solar panels to determine optimum size and type of panels which meet the structure's energy requirements. Arranges location of solar power system components, such as panel, pumps, and storage tanks, to minimize length and number of direction changes in pipes and reconstruction of existing structures. Studies engineering tables to determine size of pipes and pumps required to maintain specified flow rate through solar panels. Specifies types of electrical controls, such as differential thermostat, temperature sensors, and solenoid valves, compatible with other system components, using knowledge of control systems. Completes parts list, specifying components of system. Draws wiring, piping, and other diagrams, using drafting tools. May inspect structures to compile data used in solar system design, such as the structure's angle of alignment with sun and temperature of incoming cold water. May inspect construction of system to ensure adherence to design specifications.

ISCO 08 Unit Group Details:

Code 2143
Title Environmental Engineers

2143.0200 **Bio-Medical Engineer**

Biomedical Engineer conducts research on biological aspects of humans or other animals to develop new theories and facts, or test, prove, or modify known theories of life systems, to design life-support apparatus, utilising principles of engineering and bio-behavioural sciences.

Plans and conducts research concerning behavioural, biological, psychological, or other life systems. Studies engineering aspects of bio-behavioural systems of humans, utilising knowledge of electrical, mechanical, chemical, or other engineering principles and knowledge of human anatomy and physiology. Develops mathematical models to simulate human bio-behavioural systems in order to obtain data for measuring or controlling life processes, utilising knowledge of computer, graphics, and other related technologies. Designs and develops instruments and devices, such as artificial organs, cardiac pacemakers, or ultrasonic imaging devices, capable of assisting medical or other health-care personnel in observing, repairing, or treating physical ailments or deformities, using knowledge of materials compatible with body tissues, energy exchanges within the body, and instrumentation capable of measuring and controlling body functions. May specialize in design and development of biomedical equipment used by medical faculties and be known as Clinical Engineer.

ISCO 08 Unit Group Details:

Code 2143
Title Environmental Engineers

2143.0300 **Radiation Protection Engineer**

Radiation-Protection Engineer supervises and co-ordinates activities of workers engaged in monitoring radiation levels and condition of equipment used to generate nuclear energy to ensure safe operation of plant facilities. Evaluates water chemical analysis data in primary and supportive plant systems to determine compliance with radiation content and corrosion control regulations. Investigates problems, such as radioactive

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

leaks in reactors and auxiliary systems, or excessive radiation or corrosion of equipment, applying knowledge of radiation protection techniques and principles of chemistry and engineering to correct conditions. Confers with departmental supervisors, manufacturing representatives, and regulatory agency staff to discuss problems, to develop tests to detect radioactive leaks, and to design plans in order to monitor equipment and safety programmes. Directs workers in testing and analysing water samples and monitoring processing systems. Prepares reports, such as environmental monitoring operation report, radioactive waste releases, and shipping reports for review by administrative personnel and submission to regulatory agencies. May prepare employee performance reviews and related reports.

ISCO 08 Unit Group Details:

Code 2143
Title Environmental Engineers

2143.0400

Waste Management Engineer, Radioactive Materials

Waste-Management Engineer, Radioactive Materials designs, implements, and tests systems and procedures to reduce volume and disposal of nuclear waste materials and contaminated objects. Identifies objects contaminated by exposure to radiation, such as trash, workers' clothing, and discarded tools and equipment. Analyses samples of sludge and liquid effluents resulting from operation of nuclear reactors to determine level of radioactivity in substances and potential for retention of radioactivity, using radioactivity counters and chemical and electronic analysers. Refers to state and

federal regulations and technical manuals to determine disposal methods recommended for prevention of leakage or absorption of radioactive waste. Compares costs of transporting waste to designated nuclear waste disposal sites and reducing volume of waste and storing waste in the plant site. Confers with equipment manufacturers' representatives and plant's technical and management personnel to discuss alternatives and to choose most suitable plan on the basis of safety, efficiency, and cost-effectiveness. Designs and draws plans for systems to reduce volume of waste by solidification, compaction, or incineration. Oversees construction, testing, and implementation of waste disposal systems, and resolves operational problems. Develops plans for modification of operating procedures to reduce volume and radioactive level of effluents, and writes manuals to instruct workers on changes in work procedures. Advises management on selection of land suitable for use as nuclear waste disposal sites and on establishment of effective safety, operating, and closure procedures.

ISCO 08 Unit Group Details:

Code 2143
Title Environmental Engineers

2143.0500

Pollution Control Engineer

Pollution-Control Engineer plans and conducts engineering studies to analyse and evaluate pollution problems, methods of pollution control and methods of testing pollution sources to determine physiochemical nature and concentration of contaminants. Reviews data collected from pollution emission sources. Performs engineering calculations to determine pollution emissions from various industrial

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

sources and to evaluate effectiveness of pollution control equipment. Reviews compliance schedules and inspection reports to ensure compliance with pollution control regulations. Recommends issuance or denial of permits for industries to construct or operate facilities. Advises enforcement personnel of noncompliance or unsatisfactory compliance with regulations. Develops or modifies techniques for monitoring pollution. Calibrates and adjusts pollution control monitors to ensure accurate functioning of instruments.

ISCO 08 Unit Group Details:

Code	2143
Title	Environmental Engineers

Family 2144

Mechanical Engineers

Mechanical Engineers conduct research; advise on design, and direct production of machines, aircraft, ships, machinery and industrial plant equipment and systems; advise on and direct their functioning, maintenance and repair; or study and advise on mechanical aspects of particular materials, products or processes.

2144.0100

Mechanical Engineer, General

Mechanical Engineer, General plans, designs and supervises installation, operation, production and maintenance of machines and equipment. Prepares drawings with specifications showing details of construction and directs installation of machinery and equipment. Studies performance of existing machinery and suggests improvements to obtain optimum efficiency. Supervises

technical side of production. Inspects work in the workshop at different stages of production to ensure maintenance of correct standards. Conducts method studies, time and motion studies and determines efficient and economical way of production. Directs repairs and maintenance of workshop tools, equipment and accessories to ensure efficient operation. Ensures safety measures and observance of factory laws and statutory provisions. Examines indents and directs checking of outgoing and incoming stores according to specifications. May specialize in manufacture and erection of oil engines, turbines, machines, tools, earth moving equipment, concrete mixers, etc. May teach in engineering institutions.

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0101

Process Design Engineer

Process Design Engineer needs to design, develop, and evaluate integrated systems for achieving QCD of the production process.

Qualification Pack Details:

QP NOS Reference	ASC/Q6404
QP NOS Name	Process Design
	Engineer L6

NSQF Level 6

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0102

Process Try-out Engineer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Process Try-out Engineer needs to conduct process trials for achieving QCD of the production process

NSQF Level 5

Qualification Pack Details:

QP NOS Reference	ASC/Q6406
QP NOS Name	Process Try-out Engineer L4
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0105

Manager, Process Engineering

Manager, Process Engineering needs to develop and implement manufacturing processes by planning, conducting techno commercial feasibility analysis and procuring the facilities, tools, gauges and equipment required. They are also responsible for process review of new processes and suggest modifications in order to improve the QCT targets.

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0103

Process Try-out Technician

Process Try-out Technician needs to conduct process trials for achieving QCD of the production process

Qualification Pack Details:

QP NOS Reference	ASC/Q6409
QP NOS Name	Process Try-out Technician
NSQF Level	3

Qualification Pack Details:

QP NOS Reference	ASC/Q6407
QP NOS Name	Manager, Process Engineering
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0106

Manager-Product Lifecycle Management

Manager-Product Lifecycle Management needs to understand and manage the information flow pertaining to lifecycle of different products from the R&D department of the organization.

2144.0104

Process Validation Executive

Process Validation Executive needs to validate the manufacturing processes by planning for the activity, conducting the trials for the new process and suggest modifications in order to improve the QCT targets.

Qualification Pack Details:

QP NOS Reference	ASC/Q6408
QP NOS Name	Process Validation Executive

Qualification Pack Details:

QP NOS Reference	ASC/Q6505
QP NOS Name	Manager-Product Lifecycle Management Level
	6

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 6

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.0200

Designer, Machine

Designer, Machine; Mechanical Engineer, Designs; Machine Designer plans and designs various types of machines, tools and equipment for manufacture or experiment. Studies details and performance of existing machinery. Examines manufacturing process, production cost, wastage, etc. for preparing improved designs. Calculates data and develops new designs of machines, tools and equipment involving manufacture, repairs, replacement or modification to effect improvement. Prepares sketches, drawings etc. showing new features, dimensions, specifications, working details, limits (accuracy) and all other necessary information for accurate, easy and economical production. Advices party and management on various technical (Mechanical) problems with regard to construction, erection and installation of machinery, production methods, alteration and modification of machines, tools and equipment purchase of plants and materials, machine and building lay out, etc. May prepare designs for submitting tenders for machines and equipment. May specialize in preparing a design of a particular type of machinery in any specific industry.

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.0201

Designer-Mechanical

Designer-Mechanical understands the customer's requirement with respect to the mechanical engineering equipment. Establishes a design brief, further allocate responsibilities and resources to each activity, and ensures that the designing process is completed within agreed deadlines complying with all relevant regulations, identifying design options, evaluation of design options and their presentation in suitable formats, creating detailed designs and models using 2D and 3D software for design and obtaining design validations from production and maintenance considerations.

Qualification Pack Details:

QP NOS Reference CSC/Q0405
QP NOS Name Designer-
Mechanical
NSQF Level 6

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.0300

Tool Engineer

Tool Engineer; Tool Designer; Mechanical Engineer, Tools designs and supervises manufacture of tools, jigs, fixtures, gauges, cutters and other mechanical equipment and get those already used and reconditioned, if possible, for further use. Studies production methods, feed and speed of tools and machines used, required hardness and finish of products prescribed and standard of accuracy desired. Calculates size of tools from drawings or samples. Determines materials, tools and machines to be used, hardness and tampering temperatures etc. Prepares sketches or drawings with

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

complete specifications, accuracy required and relevant instructions for manufacture. Observes work and checks it at different stages of production such as machining, feeling, hardening, tempering, grinding, lapping etc. with precision instruments such as micrometres, Vernier, slip gauges, sine-bar shadow-graph, hardness testing machine etc. to ensure that work is being done to required accuracy. Inspects finished product, observes performance to ensure required accuracy and certifies conformity to precision standards. Examines used tools, gauges, fixers, cutters etc., determines if they can be further used with prescribed accuracy by minor repairs, such as for replacement of component, hardening, tipping (brazing or welding required type of steel cutting edge on tool) etc. and gets them reconditioned, if possible. May check tools and cutters periodically and ensure their proper maintenance. May specialize in designing particular type of tools such as press-tools, form cutters, hammer dies etc.

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.0301 **Equipment Designer**

Equipment Designer is also known as Tool Designer. Individuals at this job need to design details of the equipment mechanisms, fixtures, tools, gauges and other instruments for manufacturing and measuring the quality standards of the production process.

Qualification Pack Details:

QP NOS Reference ASC/Q6405
QP NOS Name Equipment Designer
L5

NSQF Level 5

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.0401 **Mechanical Engineer, Production**

Mechanical Engineer, Production; Production Engineer, Mechanical plans processes and directs manufacture of products by efficient methods at economical cost and according to time schedule. Studies drawings or blue-prints to ascertain various specifications of products to be manufactured. Plans manufacture, sequence of operations and machines to be used according to work load. Maintains loading (work load) figures of all machines and ensures that loads are balanced and within prescribed capacity of the plant and equipment. Considers estimated cost, devises time saving and economical method of production. Checks work by sight and with measuring instruments at different stages of production, or supervises Viewers in this activity to ensure conformity with prescribed standards and tolerances (limits). Arranges collection and storing of manufactured articles, rejected components and cut pieces for reuse or sale as appropriate. Issues work orders to different shops (sections) and follows progress and production control system to time schedule. Devises alternative methods of production in case of breakdown or other delay. Advises Maintenance Engineer regarding repairs and overhauling of machines when required or according to schedule. May specialize in production of particular type of product. May advise Tool Engineer to change design of tool to suit production requirements. May specialize in process

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

planning and be designated as Process Engineer.

Qualification Pack Details:

QP NOS Reference	ASC/Q5103
QP NOS Name	Product Conceptualization Manager
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0402

Product Conceptualization Engineer

Product Conceptualization Engineer is responsible for broad level idea generation, collecting data for performing sensitivity, trend, economic etc. analysis. Collating information for conducting internal and external benchmarking, supporting the Product Conceptualization Manager in creation of SQFD, understanding regulatory environment and also further supports in assimilation of Cross Functional Teams

Qualification Pack Details:

QP	NOS	Reference
ASC/Q5101		
QP NOS Name	Product Conceptualization Engineer	
NSQF Level	6	

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0403

Production Engineer

Production Engineers apply their skills and knowledge at a specialist level. The range

of production processes could include manufacturing operations, such as machining, fabrication, welding, material finishing or manufacture, assembly, joining or other activities, such as performance and process improvement.

Qualification Pack Details:

QP NOS Reference	CSC/Q1201
QP NOS Name	Production Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0500

Mechanical Engineer, Structural

Mechanical Engineer, Structural; Structural Engineer plans, designs and supervises construction and erection of steel structures. Prepares tentative plans, sketches and diagrams of structures to be erected giving details of steel or metal parts to be used, elevation to be given etc. Visits site of construction to familiarize with conditions and problems involved. Decides type of materials to be used, size of structures required, load requirements, etc. Designs structure and prepares final drawings indicating size, shape, strength and type of materials required. Supervises construction of structures and renders spot advice while foundations are dug or during construction. Conducts tests on strength of materials, physical and chemical properties of metals used, etc. Inspects existing structures and devises suitable measures for repairs and replacements of worn out or defective parts. May specialize in designing and erection of ship structure, steel bridges, multi-storeyed buildings, trusses, water tanks, etc.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code **2144**
Title Mechanical Engineers

2144.0600

Mechanical Engineer, Maintenance

Mechanical Engineer, Maintenance plans repairs, undertakes overhauling of machines and equipment and maintains them in proper working order. Observes working of machines and equipment to determine their capacity and maximum efficiency. Plans and draws up programme of running repairs and periodic overhauling of machines, plants and equipment avoiding disruption to work schedule as far as possible. Prepares maintenance instruction charts indicating special care and precautions to be taken during servicing and overhauling work, particularly of machines meant for precision work. Ensures that all moving parts of machinery are properly oiled and greased. Undertakes periodical inspection of plants, machinery, equipment, belting, etc., recommends repairs or replacements as necessary and condemns unserviceable ones. Supervises maintenance team and Mill Wright Fitters and enforces placing of covers, guards, fencing, etc. for safety as prescribed by factory laws. Checks repaired under overhauled plants and machinery to ensure correct performance, efficiency and accuracy and certifies them as fit for operation. Attends to breakdowns, undertakes immediate repairs or makes alternative arrangements, as appropriate, to avoid hindrance to production as far as possible. May install and erect new machines.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.0601

Service Engineer-Breakdown Service

Service Engineer-Breakdown Service deliver breakdown service for a range of mechanical equipment. It also involves identifying customer requirements, decision making on the need for repair, replacement or modification, communication with the customer on the course of action required, applying maintenance engineering techniques to equipment or component modification or repair, planning for spares based on probability of failure/wear and tear and criticality of the component/machine for production and carrying out Root Cause Analysis for repeated/long breakdowns to find out a permanent solution.

Qualification Pack Details:

QP NOS Reference CSC/Q0503
QP NOS Name Service Engineer-Breakdown Service
NSQF Level 5

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.0700

Mechanical Engineer, Automobile

Mechanical Engineer, Automobile; Automobile Engineer designs new models and plans manufacture and repairs of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

cars, trucks and other motor vehicles. Studies performance of different type and models of automobiles and designs new models or types of vehicles by application of engineering data, formulae and principles of heat engines and thermodynamics to give better performance, appearance and durability according to current demand in market or customers' needs. Plans manufacture or repairs, prepares estimates and makes arrangement of supply of necessary spares. Supervises assembly or repair work, arranges necessary modifications and replacements of parts, gets tuning and adjustments done and checks completed vehicle for efficiency and roadworthiness. May specialize in designing or repairs of particular types of petrol or diesel vehicle. May undertake motorcycle and scooter repairs. May be designated as Service Engineer, Service Manager or Works Manager if placed as in charge of motor transport workshop.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2144

Title Mechanical Engineers

2144.0701

Prototyping Engineer

Prototyping Engineer ensures that assembly line fitters are assembling the prototype electrical and mechanical components as per the New Product requirement and the machine shop/casting shop/forging shop are preparing various aggregates through different machining operations

Qualification Pack Details:

QP NOS Reference ASC/Q8301

QP NOS Name Prototyping
Engineer

NSQF Level 6

ISCO 08 Unit Group Details:

Code 2144

Title Mechanical Engineers

2144.0800

Automobile Designer

Automobile Designer designs and drafts working layouts and master drawings of automobile components, assemblies, and systems from specifications, sketches, models, prototype or verbal instructions, applying knowledge of automotive vehicle design, engineering principles, manufacturing processes and limitations, and conventional and computer drafting techniques and procedures, using drafting instruments and computerised work aids. Analyses specifications, sketches, engineering drawings, ideas and related design data to determine critical factors affecting design of components based on knowledge of previous designs and manufacturing processes and limitations. Draws rough sketches and performs mathematical computations to develop design and work out detailed specifications of components. Applies knowledge of mathematical formulas and physical laws and uses conventional and computerized work aids to make calculations. Performs preliminary and advanced work in development of working layouts and final master drawings adequate for detailing parts and units of design. Makes revisions to size, shape and arrangement of parts to create practical designs. Confers with AUTOMOBILE ENGINEER and others on staff to resolve

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

design problems. Specializes in design of specific type of body or chassis components, assemblies or systems, such as door panels, chassis frame and supports, or braking system.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2144

Title Mechanical Engineers

2144.0801

Product Design Engineer

Product Design Engineer. The role is largely responsible for understanding the product requirements and all inputs fixed by the product conceptualization team. Supports in fixing the necessary specifications of product design through use of CAD & CAE systems. The role is further responsible for transformation of functional architecture to physical architecture keeping in view FMEA indicators, telematics, human machine interface, ergonomics, parameters for reliability and validity etc. PLM Product Design Engineer is broadly responsible designing the product using CAD & CAE systems by understanding all the product requirements. The role is also responsible for supporting the manager in ensuring that the designed product includes aspects related to telematics, human machine interface, ergonomics and design FMEA.

Qualification Pack Details:

QP NOS Reference ASC/Q8103

QP NOS Name Product Design Manager

NSQF Level 7

ISCO 08 Unit Group Details:

Code 2144

Title Mechanical Engineers

2144.0802

Modeller

Modeller is broadly responsible for visualization of the final product; develop clay model from the design, transforming the sketch into digital data i.e., three dimensional shape and building mock-up which is as close as possible to the real object. A modeller's working characteristics include rapid generation of styling ideas, flexibility in combining existing alternatives and creating aesthetically appealing representations.

Qualification Pack Details:

QP NOS Reference ASC/Q8101

QP NOS Name Modeller

NSQF Level 6

ISCO 08 Unit Group Details:

Code 2144

Title Mechanical Engineers

2144.0803

Product Design Engineer

Product Design Engineer is broadly responsible for designing the product using CAD & CAE systems by understanding all the product requirements. The role is also responsible for supporting the manager in ensuring that the designed product includes aspects related to telematics, human machine interface, ergonomics and design FMEA

Qualification Pack Details:

QP NOS Reference ASC/Q8102

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Product	Design
	Engineer	
NSQF Level	6	

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0804

Prototyping Manager

Prototyping Manager needs to stay abreast of technology advancements in CAD/CAM/CAE hardware and software, constantly striving to apply technology which will help to reduce development lead times. He also needs to work with the Managers of Engineering and Testing to evaluate and recommend improvements to the product development process in accordance with corporate market.

Qualification Pack Details:

QP NOS Reference	ASC/Q8302
QP NOS Name	Prototyping Manager
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.0900

Mechanical Engineer, Aeronautical

Mechanical Engineer, Aeronautical; Aircraft Maintenance Engineer develops and modifies designs of aircraft structural and missile systems and maintains their air-worthiness. Analyses comprehensive or incomplete engineering sketches, drawings and notes to evaluate manufacturing and functional practicability of proposed design. Draws preliminary sketches and applies mathematical formulae, physical laws and

fundamental aerodynamics theory to develop detailed drawings and specifications of structures or systems such as rib assemblies, struts, landing gear, weight, strength etc. Designs components to be cast or machined from metal stock. Selects standard components such as gears, motors, relays etc. for incorporation in drawing and drafts complete layout drawings. Compiles stress analysis data resulting from testing of experimental component and prepares reports, charts and graphs for use by engineering personnel in making design decisions. Inspects various units and components of aircraft such as engine, airframe, landing gear, electrical system, various instruments, generator, starters, auto-pilot mechanism etc. before and after flight according to chart and gets necessary repairs, replacement and adjustments done by respective aircraft mechanics. Issues daily certificate of safety for flight after checking and ensuring airworthiness and signals Pilot for taking off. May specialize in aero-engine or airframe and conduct their overhaul. May conduct air crash enquiries to find out cause of crash and suggest remedial measures.

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.1000

Mechanical Engineer, Marine

Mechanical Engineer, Marine; Marine Engineer plans, designs and supervises construction and erection of all mechanical equipment of ships, boats, tugs, dredgers etc., installs and maintains motors, engines, boilers and auxiliaries and carries out their periodic overhaul. Inspects ships and other marine vessels to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

assess type and nature of repairs required, prepares estimate of costs and seeks approval from the owner. Examines and approves parts, equipment and materials to be used for additional work or replacement of worn parts and draws programme of work to be done. Supervises and controls subordinates attending to repairs on erection work. Watches performance and ensures efficiency of mechanical equipment fitted to ships. May devise new or effect improvement in existing equipment. May specialize in erection and installation of electric motors or special heating and ventilating system of ships.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.1100

Architect, Naval

Architect Naval designs and oversees construction and repair of marine craft and floating structures. Studies design proposals and specifications to establish basic characteristics of craft, such as size, weight, speed, propulsion, armament, cargo, displacement, draft, crew and passenger compliments, and fresh or salt water service. Supervises construction and testing of prototype in model basin and develops sectional and water line curves of hull to establish centre of gravity, ideal hull form and buoyancy and stability data. Designs complete hull and superstructure according to specifications and tests data, in conformity with standards of safety, efficiency and economy. Designs layout of craft interior

including cargo space, passenger compartments, ladder wells and elevators. Confers with Marine Engineer to establish arrangements of boiler room equipment and propulsion machinery, heating and ventilating systems, refrigeration equipment, piping, and other functional equipment. May be known as Architect Marine; Naval Designer.
NATIONAL CLASSIFICATION OF OCCUPATIONS

ISCO 08 Unit Group Details:

Code 2144
Title Mechanical Engineers

2144.1200

Mechanical Engineer, Air-Conditioning

Mechanical Engineer, Air Conditioning; Mechanical Engineer, Refrigeration; Refrigeration Engineer designs, assembles, installs and maintains air conditioning, refrigerating or ventilating plants and accessories in buildings, mills, storage rooms, mines, etc., for obtaining and maintaining required degree of temperature, relative humidity and air motion, or for exhaust and supply of fresh air. Surveys premises or rooms for installation of equipment. Works out technical details of erection of machinery, alteration of existing structures etc., prepares estimate of costs and gets it approved. Installs unit or machinery by assembling various parts like refrigerant pressure pipe, refrigerant condensers, compressors, etc. by welding chilled water piping, setting thermal insulation, connecting pipe for supply of water, etc. Ensures that the premise or room is airtight so that cooled air does not escape and that meters indicating pressure, temperature, etc. record correct readings. Ensures that various electric motors,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

pumps, steam boilers and ammonia and Freon compressor units work satisfactorily. Tests temperature and humidity controls (electric and pneumatic type). Records temperature produced by machines and makes necessary settings and adjustments to produce desired temperature. Supervises work of mechanics engaged in repairing and overhauling of refrigeration machines and other accessories. May specialize in a particular branch of refrigeration or air conditioning.

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.1301

Layout Engineer

Layout Engineer needs to design, develop and implement the integrated facility layouts for the organization by planning and positioning employees, materials, machines, equipment, and other manufacturing supports and facilities for minimization of waste and material handling cost; thereby providing smooth flow of work, material, and information throughout the organization

Qualification Pack Details:

QP NOS Reference	ASC/Q6403
QP NOS Name	Layout Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.1302

Industrial Engineer (Workstation Design)

Design)

Industrial Engineer (Workstation Design) needs to design develop and implement the layout of the workstations used for manufacturing processes by positioning the tools, equipment and manpower along with the alignment of material flow accordingly in order to minimize both human and machine movement and ensure optimal efficiency of the human-machine combination.

Qualification Pack Details:

QP NOS Reference	ASC/Q6402
QP NOS Name	Industrial Engineer (Workstation Design)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.1401

Service Engineer-Installation

Service Engineer-Installation job involves technical ability to understand various machine/foundation drawings, surveying the site, checking of foundation wherever required, facilitating foundation load tests if required, taking necessary clearances organizing the movement of equipment to be installed, including safe unloading of machine parts near the site, and performing the levelling, aligning and coupling the connection of sub-assemblies, and the alignment and connection to external units, such as power supplies, hydraulic and pneumatic assemblies, etc. Carrying out tests (wherever required) as per standards prescribed.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	CSC/Q0501
QP NOS Name	Service Engineer-Installation
NSQF Level	4

installing machine foundations, erecting structural steel, transportation facilities etc. not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

Family 2145 Chemical Engineers

Chemical Engineers conduct research and develop advice and direct commercial-scale chemical processes and production of various substances and items, such as crude oil, petroleum derivatives, food and drinks, medicines, or synthetic materials. They direct maintenance and repair of chemical plants and equipment and study and advise on chemical aspects of particular materials, products or processes.

2145.0100 Chemical Engineer, General

Chemical Engineer, General; Process Engineer, Chemical Engineering directs and supervises operations of chemical plants and equipment for dissolving, filtration, evaporation, dehydration, reduction, concentration, combination, crystallization, and all other unit operations for manufacture of heavy chemicals, fine chemicals, etc., according to specifications. Studies existing processes or equipment used, their efficiency and production level. Conducts research into principles of chemistry, physics, thermodynamics etc., to develop new process and to improve design of equipment for increasing efficiency of production. Directs and supervises operations, dehydration, reduction, concentration, combination,

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.1402

Service Engineer-Installation and Commissioning

Service Engineer-Installation and Commissioning job involves obtaining clearance to carry out the commissioning activities, running equipment at reduced power and speed/flow to check for leaks, etc. and checking for correct functioning, loading incrementally, making dry runs, making the machine ready for actual job prove out and making any necessary adjustments to achieve the specification parameters.

Qualification Pack Details:

QP NOS Reference	CSC/Q0502
QP NOS Name	Service Engineer – Installation and Commissioning
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2144
Title	Mechanical Engineers

2144.9900

Mechanical Engineers, Other

Mechanical Engineers, Other include all other Mechanical Engineers, such as those engaged in research, testing of equipment, rendering technical advice or mechanical engineering problems, such as

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

crystallization, etc. for manufacture of heavy chemicals, fine chemicals according to specifications. Supervises installation of equipment for production on commercial scale. Studies chemical characteristics of chemicals or chemical products, such as acids, rayon and dyes developed in the laboratory and devises processes and equipment for their manufacture. Designs, constructs and studies operation of pilot plants to test efficiency of process before construction of full-size equipment. Plans layout of plants to obtain maximum operating efficiency and supervises installation of equipment. Supervises and co-ordinates activities of workers, operating grinders, mixers, vats, stills reactors and other equipment to ensure efficient treatment of raw materials by chemical, mechanical and other means. May specialize in a particular phase of chemical engineering, such as supervision of construction or operation of plants and works and be designated accordingly.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.0200

Designer, Chemical Engineering

Designer, Chemical Engineering designs and plans lay-out and supervises installation of chemical plants and equipment for manufacture of heavy and fine chemicals, paper pulps, cements rayon, oils, soaps, coke, coke oven by-products etc. Prepares plans, diagrams and sketches for new chemical plants to be erected. Prepares project reports, selects processes based on techno economic study; studies working of existing plants, production processes, economics of costs etc. Undertakes basic

costing in relation to cost of products manufactured. Conducts research to develop new and improved chemical manufacturing processes or to obtain additional information in commercial production possibilities. Designs full size plant after determining the kind of equipment required and ascertaining optimum conditions and other essential factors. Estimates capital cost for installation of plants and cost of plant operation and co-ordinates activities of workers operating grinders, mixers, vats, stills, reactors, evaporators and other equipment to ensure efficient treatment of raw materials by chemicals, mechanical and other means. Establishes and enforces standards for testing and inspecting machinery and equipment. Tenders technical service to maintain output or performance and equipment at a most favourable economic point. May draw out specifications for procuring equipment and machinery for specific duties. May inspect and supervise erection of plants. May specialize in any engineering field such as consulting, technical sales and service, testing, purchasing and teaching at the University level.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.0300

Chemical Engineer, Paints and Varnish

Chemical Engineer Paints and Varnish develops new or improved techniques for manufacturing paint and varnish by various chemical processes. Selects raw materials for manufacture of paint or varnish and determines proportion of ingredient such as zinc oxide, baryte,

colour pigments, natural resins, synthetic resins and solvents, linseed oil, etc., according to quality and type of paint, such as stiff paints, industrial paints, etc., to be manufactured. Tests viscosity, film, drying time, covering capacity, durability of paint under manufacture by applying it on surface of a wall or a metal sheet. Develops techniques for improved and economical productions. May advice and look after packing of paints and varnish. May indent and stock sufficient raw materials to meet daily requirements. May work out cost of manufacture for new products. May be designated as Chemical Engineer, Dyes if engaged in manufacturing dyes.

ISCO 08 Unit Group Details:

Code 2145
Title Chemical Engineers

2145.0400

Chemical Engineer, Drugs and Acids

Chemical Engineer, Drugs and Acids develops new or improved techniques for manufacturing drugs and acids according to prescribed formulae. Studies details of products producing methods employed in existing processes or in laboratory. Undertakes process research to check details and to obtain additional information on possible improvements in process. Supervises installation of new equipment or alterations to existing equipment. Supervises and co-ordinates activities of workers operating grinders, mixers vats, stills, heaters, condensers and other equipment to ensure efficient treatment of raw materials by chemical, mechanical and other means. Checks and controls temperature, water feed, cooling limits etc., in the plant. Sends samples of products to laboratory to ensure required standard of product. Directs adjustments

to plant according to results of laboratory tests or quality requirements. Develops new and improved processes at economic cost. Maintains equipment and machinery in perfect working condition and at optimum level of efficiency. May specialize in specific fields of manufacture of particular drugs and undertake research in such subjects. May teach students in chemical engineering.

ISCO 08 Unit Group Details:

Code 2145
Title Chemical Engineers

2145.0500

Chemical Engineer, Petroleum

Chemical Engineer, Petroleum; Petroleum Refining Engineer develops new or improved techniques for treatment and refining of petroleum, extracts by-products, designs and supervises construction, installation and operation of equipment, plant, and works for such refining. Conducts test runs and surveys refining equipment and plant operations. Works out material and energy balances as well as economic evaluation of balances. Prepares process designs, cost estimates, technical reports and records on operating and technical data. Observes and records day to day refining operating data for analysing plant performance and recommends measures to improve operating efficiency, reduce cost and increase production capacity. Checks product quality, deviation and follows up difficulties in blending, viscosity, vapour pressure and other specifications. Analyses all losses such as oil, fuel, gas, chemical, utilities and catalyst, deduction of flare gas etc., calculates material and energy balance for given refinery unit and decides or recommends product pattern after studying market requirements.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Prepares drawings of process designs and other engineering drawings as required. May prepare process designs and assist in preparation of complete designs.

ISCO 08 Unit Group Details:

Code 2145
Title Chemical Engineers

2145.0600 **Chemical Engineer, Fertilizers**

Chemical Engineer, Fertilizers plans, designs and installs various types of chemical plants, equipment and machinery for manufacture of fertilizers. Prepares plans showing layout of plant equipment for manufacture of fertilizers. Supervises erection of plant and various ancillary machinery and equipment. Test-runs and surveys on equipment and plant operations and works out material and energy balance as well as economic evaluation of balances. Instructs subordinates in charging plant with prescribed quantity of raw materials like phosphates, bone meal, acids, etc. Controls pressure, temperature, acid feed, cooling limits etc. of plant and sends samples of finished or semi-finished product to chemist for analysis. Checks that bones are properly cooked, dried and ground to prescribed fineness. Develops new and improved processes at economic cost. Maintains plant and equipment at optimum level of efficiency. May prepare process designs and assist in preparation of complete designs. May design new equipment. May specialize in particular branch of manufacture of fertilizers. May undertake research and teach students in universities.

ISCO 08 Unit Group Details:

Code 2145
Title Chemical Engineers

2145.0700 **Chemical Engineer, Food**

Chemical Engineer, Food develops new or improved methods and techniques of food processing in manufacture of Vanaspati, dairy and other food products. Studies and checks details of products producing methods employed in existing process or in laboratory to obtain additional information on possible improvements in process or in commercial production possibilities. Directs and supervises various processes to get maximum efficiency, consistent with quality and statutory obligations. Supervises installations of new equipment or alterations to existing equipment and co-ordinates activities of workers engaged in preparation of food material such as dairy products, baby-foods, dehydration of vegetables, canning of food, etc. May undertake process research or report to research division for proper investigation any inexplicable and exceptional phenomenon.

ISCO 08 Unit Group Details:

Code 2145
Title Chemical Engineers

2145.0800 **Technologist, Food/Chemical Engineer**

Technologist, Food devises new or improved technique for processing, conservation, preservation, utilisation and evaluation of content of new food stuffs generated from plant and animal life and suitable for human consumption and animal breed. Conducts research processes to create new foods, improves existing techniques to economise

processing and also to impart better values and taste to food, such as cold storage of perishable, meat, fish, etc., canning, pickling, dehydration of fruits and vegetable etc. evolves measures, such as infestation control, fungicidal treatment and insecticidal storage to protect foods from spoilage and damage. Examines food stuff contamination, adulteration, food value, etc. by biochemical and nutrition tests and quality control measures. Develops through research, new methods and processes for recovering useful and utilisable by-products from industrial and domestic wastes of food stuffs. May control and guide transformation process, such as blending, anti-oxidisation and microbiological and sanitary measures.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.0900

Technologist, Fuel

Technologist, Fuel analyses physical and chemical properties of fuels (solid, liquid and gaseous) in laboratories and plants, and develops improved processes and techniques for optimum utilisation of their heating capacity. Undertakes coal surveys in field stations for quantitative and qualitative assessment of fuel resources. Determines wash ability characteristics, nature and utilisation potentialities of different kinds of fuel. Investigates properties of low-grade coals by experiments to determine their suitability for producing domestic and metallurgical coke required for recovery of by-products, like tar, gas etc. and extraction of chemicals from them by low-temperature carbonisation (heating in absence of air). Organizes and conducts

experimental studies on high-temperature carbonisation in relation to optimum utilisation of superior coking coal, upgrading inferior coal, blending sub-standard coking coal with prime coking coal, adoption of improved iron and steel melting techniques, etc. for purposes of production of metallurgical coke and conservation of coking coal reserves. Determines briquetting potentialities of fine coal, coke dust and lignite and develops improved methods of briquetting, by experimental studies, for their efficient utilisation as domestic fuel. Studies coal gasification by conducting tests on by-product fuels and inferior coal for evolving improved and purified process of manufacturing domestic and industrial gas and of utilising gas for synthesis of chemicals and oils, undertakes combustion studies in respect of by-products fuels, middling and rejects their utilisation in power generation for developing suitable small boiler pulverised coal burners and for developing economical combustion techniques. Determines nature of crude petroleum and related correlation indices for developing processes of upgrading kerosene fractions of crude, producing diesel oil from coal tar fractions and utilising surplus motor spirit production etc. Conducts investigations on recovery and utilisation of by-products like gas, tar, benzole and liquor for extraction of industrially useful chemicals and acids, and on conversion coal, coal dust and slacks and other colliery and washery rejects into soil conditioners and organic nitrogenous fertilizers. Undertakes studies on evolving methods of briquetting lignite, their carbonisation and preparation of coke from them, development of coil products from coal and other raw indigenous materials, improving, developing and standardizing methods of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

sampling, analysis and testing of coal, coke and other fuels, synthesis of liquid fuels like petroleum diesel, kerosene, etc. from coal by direct and indirect methods of hydrogenation, statistical analysis, and programming and survey of scientific and industrial data. Undertakes fundamental studies in different fields; designs high and low-pressure gas storage and distribution system, and appliances for utilizing fuel gas, of varying characteristics. May render technical assistance to industries and other agencies on problems of fuel, and specialize in particular kind of fuel: solid, liquid and gaseous fuel.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.1000

Oil Technologist

Oil Technologist conducts research to develop new or improves processes for manufacture of oil, soap, Vanaspati, paints, varnish, perfumes, essential oils and allied products etc. Studies physical and chemical properties of raw materials of oils, fats, oil products, e.g., oil seeds. Observes extraction of oil by machine under different conditions and devises methods, techniques and process for analysis and better results. Designs and fabricates chemical plants, tests refined oil and other by-products by chemical examination. Ensures that finished products like Vanaspati and other edibles conform to prescribed standards. Advises utilisation of by-products and waste products in manufacturing other commercial products like soap, scents, cylindering of oxygen, etc. and guides and supervises operation of plants and

processes to improve rates of output, product quality etc.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.1100

Technologist, Paper

Technologist, Paper evolves and supervises chemical and technological processes for production of quality paper. Conducts research in laboratories for maximum utilisation of indigenous raw materials and reduction of industrial wastage; evolves new production techniques and improves old ones for production of varieties of quality paper at economic and competitive cost. May supervise installation, operation and maintenance of machinery and equipment for production of paper.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.1200

Technologist, Alcohol

Technologist, Alcohol conducts research for manufacturing industrial and beverage alcohols, rectified spirits and by-products. Receives cultures of different varieties of yeast from distilleries, documents them into different varieties, tests them in laboratory, formulates results and sanctions its use by public. Conducts technical instruction of distilleries to maintain efficiency at high level. Keeps technical control on fermentation, grinding and distillation and advises distilleries and pharmacies in day to day technical problems. Advises excise

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

department and Government on technical matters connected with fermentation industries. Inspects petrol mixing depots to examine their procedure for preparation of petrol mixture. Initiates research problems connected with fermentation industries and with properties of liquid fuels. Analyses products (intermediate and final) drawn by various excise inspectors and examines technical efficiency data furnished by various distilleries. Examines tools and equipment and premises periodically and considers cases for extension. Builds up researches for development purpose, recommends new application of alcohol and suitable denaturants and preserves samples.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.1300

Technologist, Rubber

Technologist, Rubber develops production processes for manufacture of rubber products such as tyres, tubes, sports goods, rubber gloves and hot bags. Analyses physical and chemical properties of raw materials such as crude rubber, zinc oxide, acids, anti-oxidants, oil softeners, colour pigments, etc. and evolves formulae for mixing raw materials in different proportions for manufacturing different types of rubber products like tyres, tubes, industrial and domestic rubber goods etc. Conducts various tests in laboratory by mixing various chemicals with rubber compounds and studying their properties to determine new formulae of production processes. Tests rubber products at each process of production to ensure conformity to prescribed standards and improvement in

quality. Develops new rubber compounds and processes. Examines finished products for quality, tensile strength, and hardness etc. using different machines. May design new machinery or equipment or make improvement in existing ones. May specialize in particular fields of rubber manufacturing.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.1400

Technologist, Plastics

Technologist, Plastics evolves, adopts and supervises various processes for manufacture of synthetic material, called plastics. Carries out research in laboratories to determine chemical composition and physical qualities of various raw materials and substances, such as coal, petroleum, wood, cotton, and evolves and adopts various processes, viz. comparison, heat moulding, lamination, calendaring, vacuum forming, fabrication, and spreading for production of synthetic materials called plastics. Tests finished products. May supervise and guide production processes in factories.

ISCO 08 Unit Group Details:

Code	2145
Title	Chemical Engineers

2145.9900

Chemical Engineers and Technologists, Other

Chemical Engineers and Technologists, Other include all other Chemical Engineers who specialize in designing and installing chemical plants, developing techniques of production processes, sales of plants and equipment and manufacture of bricks,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

pottery, glassware, plastics, paper, oil, fat, soaps, cosmetics, coal tar products, dye stuffs, etc. not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2145
Title Chemical Engineers

Family 2146

Mining Engineers, Metallurgists and Related Professionals

Mining Engineers, metallurgists and related professionals conduct research on and, design, develop and maintain commercial-scale methods of extracting metals from their ores, or minerals, water, oil or gas from the earth and of developing new alloys, ceramic and other materials, or study and advise on mining or metallurgical aspects of particular materials, products or processes.

2146.0100

Mining Engineer, General

Mining Engineer, General plans, organizes and supervises work of extracting metallic and non-metallic minerals from earth and their treatment prior to direct use or further processing. Studies geological and topographical surveys to determine location, size, inclination, etc. of mineral deposits. Decides upon most effective and economic techniques to be used. Prepares working and development plans for mining operation including plans for roadways, railways and power supply. Supervises and co-ordinates various mining surveying and related operations such as preparation for entrance into mine by driving of shaft or otherwise, transport, ventilation, roofing by providing supports etc. and arranges storage of explosives, blasting, haulage, sampling of

mined materials, sand stowing, valuing and related operations. Ensures safe extraction and efficient working. Supervises operations in treatment of minerals at mine or quarry such as washing, crushing and re-dressing. Enforces safety measures and checks unauthorised exploitation of minerals. Supervises rescue operations when required. Maintains records and statistical data and prepares reports for Government and other authorities. May advise Government regarding leasing of mineral properties and may collect rent and royalty from lessees. May undertake research in mining engineering. May be known as Inspector of Mines; Mining Officer; Conservator, Mines; depending on specialisation.

ISCO 08 Unit Group Details:

Code 2146
Title Mining Engineers, Metallurgists and Related Professionals

2146.0200

Mining Engineer, Non-metals

Mining Engineer, Non-Metals plans, organizes and supervises extracting of stratified deposits of solid non-metal minerals like coal, fire clay, gypsum, mica, precious stones etc. from earth by various mining processes. Performs basic tasks similar to those of Mining Engineer, General but specializes in extraction of coal, stone clay, diamond and other solid non-metallic minerals by underground or surface operations and in their preliminary treatment such as washing, ore dressing, etc.

ISCO 08 Unit Group Details:

Code 2146
Title Mining Engineers, Metallurgists and Related Professionals

2146.0300

Mining Engineer, Metal

Mining Engineer, Metals plans, organizes and supervises extraction of metallic ores like gold, silver, copper, iron, manganese, etc. and their preliminary treatment for further processing; performs basic tasks similar to those of Mining Engineer, General but specializes in extraction of gold, silver, copper and other metallic minerals by underground or surface operations and in their preliminary treatment by crushing and other means.

ISCO 08 Unit Group Details:

Code 2146

Title Mining Engineers, Metallurgists and Related Professionals

2146.0400

Mining Engineer, Petroleum and Gas

Mining Engineer, Petroleum and Gas plans, organizes and supervises work of extracting, storing and transporting petroleum and natural gas. Supervises geographical and geophysical surveys and studies earth samples and other data. Recommends appropriate techniques for drilling oil and gas wells, and for testing flow, pressure etc. of petroleum or gas. Advises on spacing and locating of wells, position and size of casing, location of cementing points, etc. Devises well completion methods on basis of test results and sub-surface engineering features. Calculates reserves of petroleum and gas by studying core and fluid samples. Recommends optimum production methods consistent with conservation practices and later exploitation of field. Utilises suitable

surface and subsurface equipment and maintains it in working order. Treats well by various physical and chemical means to maintain production. Dehydrates oil by various physical and chemical processes. Formulates and controls compositions of drilling fluids and guards against contamination or lost circulation of oil or gas. Obtains core and subsurface sampling of reservoir fluids. Injects gas or fluids to maintain production pressure. Initiates and supervises regulations regarding safety and fire protection. Maintains accurate records of oil, gas and water production for engineering, royalty, tax and other purposes. May be known as Production Superintendent or Production Engineer, Petroleum; Reservoir Engineer, Crude Oil; Mud Engineer, Petroleum according to attainments and experience gained.

ISCO 08 Unit Group Details:

Code 2146

Title Mining Engineers, Metallurgists and Related Professionals

2146.0500

Metallurgist, Extractive

Metallurgist, Extractive; Production Metallurgist; Process Metallurgist plans, organizes and controls extraction of metals from ores, their conversion into industrially useful products and production of alloys. Analyses ore and determines methods of extraction of metals to be employed such as pyrometallurgy (dry method, carried on at elevated temperature in furnace), hydrometallurgy (wet method, dissolving ore in suitable solvent and then precipitating or depositing metal by suitable substance or electrolysis) or electrometallurgy (carried out at high temperature and tapping metal in fused

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

condition) depending on type, quality and quantity of ore. Ensures maximum economic extraction of metal or alloy of best possible prescribed grade. Prescribes temperatures, proportions of ingredients and chemicals to be added, solvents to be used, voltage required and controls them at all stages of production. Supervises production, and controls all operations such as smelting, calcining, roasting, oxidising, flux, charging fusibility of compounds, distillation, precipitation, current, voltage, and deposition of metal. Analyses samples at regular intervals, records observations and makes needed adjustments according to furnace and bath (large lined metal trays) condition to ensure that metal or alloy produced confirms to prescribed quality and quantity. May design and supervise construction or repairs of furnace, bath, etc. May test physical properties of metal or alloy produced for quality control and identify area of improvement.

ISCO 08 Unit Group Details:

Code 2146

Title Mining Engineers, Metallurgists and Related Professionals

2146.0501

Manager Heat

Treatment/Metallurgist

Manager Heat Treatment/Metallurgist is responsible for supervising the various heat treatment operations like Carburizing, Tempering, Nitriding, Induction Hardening and Quenching, maintaining process and output parameters viz. Temperature, cycle time, bath concentrations and hardness, strength, microstructure,, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment and

maintaining records related to production, rejections, material movement and manpower productivity for a line/shift.

Qualification Pack Details:

QP NOS Reference	ASC/Q3903
QP NOS Name	Manager Heat Treatment /Metallurgist
NSQF Level	6

ISCO 08 Unit Group Details:

Code 2144

Title Mechanical Engineers

2146.0600

Metallurgists, Adaptive

Metallurgist Adaptive; Metallurgist, Physical; Metallurgist, Mechanical investigates properties and treatment of metals and supervises production of basic metals and alloys. Conducts microscopic (both low and high magnification), spectroscopic, X-Ray, and other studies of metals and alloys to determine their physical characteristic such as crystalline structure, dispersion of alloy particles through basic metal and presence of impurities, fractures and other defects in metal samples. Develops techniques for rolling, alloying, casting, forging, drawing (metal drawing), spinning, die casting, welding, heat-treating etc. to obtain desired characteristics, such as ductility, malleability, elasticity, plasticity, toughness, hardness, strength, etc. Tests samples at different stages of production, adopting pressure and other suitable devices and apparatus to determine their compliance with prescribed standards. Undertakes designing of mills and assists Electrical and Mechanical Engineers in repairs and maintenance.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 2146

Title Mining Engineers, Metallurgists and Related Professionals

2146.9900

Mining Engineers, Metallurgists and Related Professionals, Other

Mining Engineers, Metallurgists and Related Professionals, Other include all other Mining Engineers and metallurgists, such as those engaged in developing new types of alloys, supervising construction and repair of metallurgical furnaces, testing physical properties of metals and alloys etc. and consultation for planning and extraction of mineral product, conducting research in sampling of precious metals, fumes and ores etc. not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2146

Title Mining Engineers, Metallurgists and Related Professionals

Family 2149

Engineering Professionals, Not Elsewhere Classified

This unit group covers Engineering Professionals not classified elsewhere in minor group 214, Engineering professionals (excluding electro-technology) or in minor group 215, Electro-technology Engineers. For instance, the group includes those who conduct research, advise on or develop engineering procedures and solutions concerning workplace safety, biomedical engineering, optics, materials, nuclear power generation and explosives.

2149.0100

Engineers and Related Technologists, other

Architects, Engineers and Related Technologists, Other include all other engineers and technologists, such as those engaged in proper utilisation of machine and manpower, safety devices and other industrial problems, research work in laboratories and application of results thereof to manufacture and solve practical problems, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2149

Title Engineering Professionals, n.e.c

Group 215

Electro-technology Engineers

Electro-technology Engineers conduct research and design, advise, plan and direct the construction and operation of electronic, electrical and telecommunications systems, components, motors, and equipment. They organize and establish control systems to monitor the performance and safety of electrical and electronic assemblies and systems.

Occupations in this Group are classified into the following Families:

2151 Electrical Engineers

2152 Electronics Engineers

2153 Telecommunication Engineers

Family 2151
Electrical Engineers

Electrical Engineers conduct research and advice on, design, and direct the

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

construction and operation of electrical systems, components, motors and equipment, and advise on and direct their functioning, maintenance and repair, or study and advise on technological aspects of electrical engineering materials, products and processes.

2151.0100

Electrical Engineer, General

Electrical Engineer, General plans, designs and supervises manufacture, installation, testing, operation and maintenance of various types of electrical wiring, machinery and equipment. Plans layout of work and equipment and prepares or directs preparation of sketches, detailed drawings and writing diagrams. Specifies method of construction materials to be used and standard of workmanship required. Prepares or checks estimates of cost of materials, construction, installation and labour charges. Supervises construction and installation or erection work and gives necessary technical advice at every stage of progress. Inspects completed work to ensure efficient operation according to prescribed specifications and safety standards. Directs repairs and maintenance of electrical apparatus and equipment. May specialize in designing and manufacturing of any particular item e.g., transformers, switchgears, simple electronic equipment, etc., other applications of electrical energy or in generation and transmission of electricity. May examine economical aspects of schemes to be undertaken. May be designated as Project Engineer, Electrical if engaged in electrical construction or installation project work.

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0200

Designer, Electrical Engineering

Designer, Electrical Engineering; Electrical Engineer, (Design) plans and designs various types of electrical plants and equipment using available research data. Prepares plans, diagrams and sketches of electrical plants and equipment for manufacture, indicating construction details, material specifications and production methods. Supervises production, tests and observes performance and designs additional or alterations to effect improvements or to suit particular requirements. Studies consumer's needs and develops design for manufacture of new devices and products. Prepares detailed plant instructions and maintains manuals and diagrams illustrating operation details, circuits, connections, etc. Conducts research and experiments on efficiency, performance etc. of existing machines and equipment to effect improvement. May inspect assembly and installation of electrical equipment and machinery. May prepare designs and estimate cost of production for submitting tenders.

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0201

Design Engineer

Design Engineer assists on research and development of new products and systems and creates the initial drawings. The individual at work is responsible for assisting R&D Engineers in undertaking research on new products, and working with Systems Designer to create initial drawings.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	ELE/Q8703
QP NOS Name	Design Engineer
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0202

Electrical Design Developer

Electrical Design Developer also called, 'Design Engineer', Electrical Design Developer creates or modifies electrical system drawings of appliances for both new and existing products. The individual at work develops electrical system drawings based on new product or modifications in modules of existing products. This drawing is then used for prototype development or by the production team to assemble the modified modules in the appliance.

Qualification Pack Details:

QP NOS Reference	ELE/Q3801
QP NOS Name	Electrical Design Developer
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0300

Electrical Engineer, Generation and Supply

Electrical Engineer, Generation and Supply; Power House Superintendent, Mains Engineer; Maintenance Superintendent installs, operates and maintains power generating stations and power transmission and distribution

systems. Calculates details and prepares sketches and drawings with necessary instructions for erection of power generating station, sub-station, transmission lines, etc., or gets them prepared under their guidance. Supervises assembly and erection of generation and transformer equipment. Surveys area to determine installation of power lines and directs erection of distribution lines to carry power to consumers. Attends to breakdowns and restores power supply within least possible time. Tests meters, transformers, relays and other sensitive instruments for calibration, accuracy and stipulated performance. Estimates unit cost of power production and calculates suitable tariff rates for supply of power to consumers and other supply authorities. Inspects premises having electrical equipment and ensures compliance with statutory requirements. May invite tenders, compare them and suggest purchases to be made. May supervise construction of powerhouses and substations. May be designated as Generation Engineer, Distribution Engineer, Operation Engineer, etc. according to nature of work performed.

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0400

Illumination Engineer

Illumination Engineer designs and directs installation of illuminating equipment and systems for buildings, plants, streets, stadia, tunnels, and outdoor displays. Studies lighting requirements of clients to determine lighting equipment and arrangement of lamps that provide optimum illumination with economy of installation and operation. Designs lamps

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

of required light intensity and output, light control reflectors and lenses and lamp arrangement required to meet illuminating standards. Plans and prepares drawings for installation of lighting system in accordance with clients' specifications and municipal codes. Directs installation of systems to ensure conformance with engineering specifications and compliance with electrical codes.

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0403

LED Light Design Engineer

LED Light Design Engineer is responsible for LED product conceptualization and designing. The individual at work conducts research, designs and develops LED driver and light engine system to create final LED product prototype for production.

Qualification Pack Details:

QP NOS Reference	ELE/Q9101
QP NOS Name	LED Light Design Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0404

LED Light Design Validation Engineer

LED Light Design Validation Engineer is responsible for verification testing of LED light product prototype created by LED light designer. The individual at work performs various tests on LED light product prototype for validating its design

and performance as per pre-set parameters.

Qualification Pack Details:

QP NOS Reference	ELE/Q9102
QP NOS Name	LED Light Design Validation Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0601

System Analyst (PCB Design)

Systems Analyst (PCB Design) analyses the customer requirement verifying that the design is feasible to develop and finalise. The individual at work is responsible for understanding the customer requirement and verifying that the design is feasible to develop, and co-ordinates with the Design Engineer to finalise it.

Qualification Pack Details:

QP NOS Reference	ELE/Q8701
QP NOS Name	System Analyst (PCB Design)
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0602

Systems Designer (PCB Design)

Systems Designer (PCB Design) uses software tools to develop schematics and create PCB layout, converting them to Gerber format for end manufacturer user, for the PCB assembly and fabrication process. The individual at work is responsible for developing schematics and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

creating PCB layout and convert them to Gerber format with detailed instructions and information, using CAD and other software tools, for the manufacturing and assembly process.

Qualification Pack Details:

QP NOS Reference	ELE/Q8702
QP NOS Name	Systems Designer (PCB Design)
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.0701

Design-for-Manufacture Engineer

Design-for-Manufacture Engineer is responsible for converting electrical design drawings into a format that is used by technicians during manufacture of the product. The individual at work converts the electrical design drawing to wiring and assembly instructions that are easily understood by Assembly Technicians.

Qualification Pack Details:

QP NOS Reference	ELE/Q1601
QP NOS Name	Design-for- Manufacture Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

2151.9900

Electrical Engineers, Other

Electrical Engineers, Other include all other Electrical Engineers such as those specialized in inspecting or testing

systems of electrical equipment, carrying out research work, giving technical advice in electrical engineering problems, etc., not classified elsewhere.

Qualification Pack Details:

QP NOS Reference	
QP NOS Name	
NSQF Level	

ISCO 08 Unit Group Details:

Code	2151
Title	Electrical Engineers

Family 2152

Electronics Engineers

Electronics Engineers conduct research on, design, and direct the construction functioning, maintenance and repair of electronic systems and study and advise on technological aspects of electronic engineering materials, products or processes.

2152.0200

Electronic Engineer

Electronics Engineer researches, develops, designs, and tests electronic components, products, and systems for commercial, industrial, medical, and scientific applications, applying principles and techniques of electronic engineering, Designs electronic circuits, components and integrated systems, utilising ferroelectric, nonlinear, dielectric, phosphorescent, photo-conductive, and thermoelectric properties of materials. Designs test control apparatus and equipment, determines procedures for testing products, and directs engineering personnel in fabrication of test control apparatus and equipment. Develops new applications of conductive properties of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

metallic and non-metallic materials used in components, and in application of components to products or systems. May direct field operations and maintenance of electronic installations. May evaluate operational systems and recommend design modifications to eliminate causes of malfunctions or changes in system requirements. May specialize in development of electronic principles and technology in fields, such as telecommunications, telemetry, aerospace guidance, missile propulsion control, counter-measures, acoustics, nucleonic instrumentation, industrial controls and measurements, high-frequency heating, computers, radiation detection, encephalography, electron optics, and biomedical research. May use computer-assisted engineering and design software and equipment to perform engineering tasks.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

products, using calculator or CAE system. Analyses ability of product to withstand stress imposed by conditions, such as temperature, loads, motion, and vibration, using mathematical formulas and computer simulation. Builds product model of wood or other material, performs physical stress tests on model, and evaluates test results. Consults with ELECTRONICS-DESIGN ENGINEER to recommend design modifications of products based on results of stress analysis. Prepares stress analysis reports.

Qualification Pack Details:

QP NOS Reference ASC/Q5102

QP NOS Name Computer Aided Test Executive

NSQF Level 6

ISCO 08 Unit Group Details:

Code 2152

Title Electronics Engineers

2152.0400

Electro-Optical Engineer

Electro-Optical Engineer conducts research and plans development and design of gas and solid state lasers, masers, infrared, and other light emitting and light sensitive devices. Designs electronic circuitry and optical components with specific characteristics to fit within specified mechanical limits and to perform according to specifications. Designs suitable mounts for optics and power supply systems. Incorporates methods for maintenance and repair of components and designs, and develops test instrumentation and test procedures. Confers with engineering and technical personnel regarding fabrication and testing of prototype systems, and modifies designs as required. May conduct application analysis to

ISCO 08 Unit Group Details:

Code 2152

Title Electronics Engineers

2152.0301

Stress Analyst/Computer Aided Test Executive

Stress Analyst conducts stress analysis on engineering designs for electronic components, systems, and products, using mathematical formulas and computer-aided engineering (CAE) systems. Analyses engineering designs, schematics, and customer specifications to determine stress requirements on products. Formulates mathematical model or three-dimensional computer graphic model of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

determine commercial, industrial, scientific, medical, or other use for electro-optical devices. May assist with the development of manufacturing, assembly, and fabrication processes.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2152

Title Electronics Engineers

2152.0501

Design Engineer

Design Engineer is also called 'VLSI Design Engineer', the Design Engineer is responsible for designing the functions of modules of the System-On-Chip (SOC) as per input and output specifications given. The individual at work designs SOC-module function using software and design tools and as per specifications. The individual is also responsible co-ordinating with other design teams involved in the SOC design.

Qualification Pack Details:

QP NOS Reference ELE/Q1201

QP NOS Name Design Engineer

NSQF Level 5

ISCO 08 Unit Group Details:

Code 2152

Title Electronics Engineers

2152.0502

Design-for-Test Engineer

Design-for-Test (DFT) Engineer is responsible for developing logic to detect faults in the circuit and, enable faster and

effective testing on chips after fabrication. The individual at work reads the IC design, develops the test logic for the chip to detect faults in the circuit and to improve testing features in the chip after fabrication process.

Qualification Pack Details:

QP NOS Reference ELE/Q1402

QP NOS Name Design-for-Test
Engineer

NSQF Level 5

ISCO 08 Unit Group Details:

Code 2152

Title Electronics Engineers

2152.0601

Quality Engineer

Quality Engineer designs and implements methods and procedures for inspecting, testing and evaluating the finished products of medical devices. The individual at work is responsible for ensuring compliance to quality regulations during product design, identifying and implementing system evaluation and product assessment procedures in order to ensure conformance to standards and specifications.

Qualification Pack Details:

QP NOS Reference ELE/Q7901

QP NOS Name Quality Engineer

NSQF Level 5

ISCO 08 Unit Group Details:

Code 2152

Title Electronics Engineers

2152.0801

Electronic Hardware Design Engineer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Electronic Hardware Design Engineer receives new product specifications from the customer and develops the PCB design based on the specifications. The individual at work is responsible for undertaking research on new products, work with R&D on developing the schematics, converting them to PCB layout using CAD and other software and generating the Gerber file to pass on to PCB manufacturers.

Qualification Pack Details:

QP NOS Reference	ELE/Q6102
QP NOS Name	Electronic Hardware Design Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2152
Title	Electronics Engineers

2152.0901

Verification Engineer

Verification Engineer also known as 'Functional Verification Engineer' is responsible for performing checks to ensure functionality of the design conforms to the input output specification. The individual at work studies the design specifications, develops test cases and runs a verification program on the module's function-design using software and specific tools to validate the results with the specification. The individual is also responsible for co-ordinating with other departments involved in system-on-chip (SOC) design development for effective design implementation.

Qualification Pack Details:

QP NOS Reference	ELE/Q1301
QP NOS Name	Verification Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2152
Title	Electronics Engineers

2152.0902

Testing and Validation Engineer

Testing and Validation Engineer is responsible for testing the structural and functional quality of the fabricated chip. The individual at work performs structural and functional tests using tools and software to ensure that the component is defect-free and meets the end users' requirement.

Qualification Pack Details:

QP NOS Reference	ELE/Q1601
QP NOS Name	Testing and Validation Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2152
Title	Electronics Engineers

2152.9900

Electronics Engineers, Other

Electronics Engineers, Other include all other Electronic Engineers such as those specialized in inspecting or testing systems of electronic equipment, carry out research work, give technical advice in electronic engineering problems, etc., not classified elsewhere.

Qualification Pack Details:

QP NOS Reference	
QP NOS Name	
NSQF Level	

ISCO 08 Unit Group Details:

Code	2152
Title	Electronics Engineers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family 2153

Telecommunication Engineers

Telecommunications Engineers conduct research and advise on, design, and direct the construction, functioning, maintenance and repair of telecommunication systems and equipment. They study and advise on technological aspects of telecommunication engineering materials, products or processes.

2153.0100

Telecommunication Engineer, General

Telecommunication Engineer, General; designs, manufactures, installs, operates and maintains telegraph and telephone telex systems, radio, radar, special microwave and other telecommunication instruments. Surveys areas for installation of telegraph and telephone equipment. Prepares plans and gets drawing made with necessary details. Installs suitable telecommunication equipment like teleprinters, signalling equipment, transmitters, radio receivers etc. Supervises laying of overhead and underground cables. Conducts periodical checks of stations and units and attends to breakdowns to remove faults in telephone and telegraph systems. Maintains telecommunication equipment in working order. May specialize in designing and maintaining special equipment for telegraphs, telephone, or radio broadcasting systems including servo-mechanism and tele-system controls and is designated accordingly.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2153

Title Telecommunication Engineers

2153.0101

Telecom Terminal Equipment Application Developer (Android)

Telecom Terminal Equipment Application Developer is responsible for creating customized Applications for Android platform that can be used by Smartphone or Tablets running on Android Operating System. Developer creates User Interfaces, writes business logics for events, activities and business logic defined by the app. The Developer also performs unit tests for the codes written and also ensures that adequate security measures are taken to protect valuable data used in the application by unauthorized external agents.

Qualification Pack Details:

QP NOS Reference TEL/Q2300

QP NOS Name Telecom Terminal Equipment Application Developer (Android)

NSQF Level

4

ISCO 08 Unit Group Details:

Code 2153

Title Telecommunication Engineers

2153.0102

Telecom Terminal Equipment Application (Native Applications)

Native Mobile Application Developer is responsible for creating customized Applications for any Mobile platform that can be used by

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Smartphone or Tablets running on iOS, Android, Blackberry and Windows 8x Operating Systems. Application Developer creates User Interfaces, writes business logics for events, activities and value added services for applications. The Application Developer also performs unit tests for the codes written and also ensures that adequate security measures are taken to protect valuable data used in the application by unauthorized external agents

Qualification Pack Details:

QP NOS Reference	TEL/Q2301
QP NOS Name	Telecom Terminal Equipment Application (Native Applications)
NSQF Level	4

ISCO 08 Unit Group Details:

Code 2153
Title Telecommunication Engineers

2153.0200

Radio Telecommunication

Radio Engineer, Telecommunication plans, designs, installs and maintains equipment utilized in radio broadcasting, transmission reception and television programmes. Plans lay-out of transmission and receiving system equipment. Prepares sketches, drawings or wiring diagrams and specifies method of construction, materials to be used and other details. Estimates labour, material and other construction and installation costs. Supervises construction and installation of plant and equipment. Inspects completed work to ensure efficient operation and compliance with specification and safety standards. Tests electronic equipment, generators,

alternators, motors and other components of broadcasting systems periodically to maintain performance according to prescribed specifications. Supervises necessary repairs and replacements. Maintains frequency of transmission wave length within prescribed limits. Operates critical frequency measuring equipment, decides choice of correct frequency for efficient transmission and supervises changes in system for transferring broadcast to different frequency in accordance with international agreements on frequency schedules. Maintains communication with ships at sea or aircraft in flight and land. Deciphers code messages received through wireless or other means. May specialize in designing equipment and studios or in installation and maintenance of tele-communication equipment including transmission lines, aerials and propagation of radio waves.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSOE Level

ISCO 08 Unit Group Details:

Code 2153
Title Telecommunication Engineers

2153.0300

Microwave Telecommunication

Microwave Engineer, Telecommunication designs, installs, maintains and operates special telecommunication equipment working on microwaves, such as radar, navigational aids etc., to maintain communication between specified points. Prepares layout and supervises installation of microwave project taking into account site, accessibility, availability

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

of power, etc. Checks functional operations of equipment and puts it into action to establish communication between specified points (between stations in service area, between ground and air etc.). Keeps regular watch and records all readings registered by instruments. Detects any faults, ascertains reasons of break downs, and sets them right either by adjusting or by getting defective components replaced. Supervises regular maintenance of equipment according to schedule, including maintenance of wave guides, distribution lines, aerials etc., keeps units in working order, and ensures proper reception and transmission of messages. May undertake research in problems connected with tele-communication engineering and carry out administrative duties.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2153

Title Telecommunication Engineers

2153.0400

Line Communication Engineer, Telecommunication/Telecommunication Engineer/Technician

Line Communication Engineer, Telecommunication; Telephone Engineer; Telegraph Engineer plans, designs, installs and maintains telegraph, telephone and other tele-communication equipment. Installs telephone and telegraph communication equipment and supplies necessary power to them. Instructs subordinates in correct methods of laying

underground cables, submarine cables, overhead lines, etc. Installs telephone equipment and gives service connections to subscribers. Plans and develops new telephone or telegraph equipment or improves existing ones to give better service facilities to customers. Maintains equipment in perfect working condition and ensures that communication circuits in telephone exchanges, telegraph offices, long distance communication lines, carrier systems for trunk services, teleprinters etc., are maintained at optimum level of efficiency. Attends to breakdowns of communication and traffic lines and restores service quickly by rectifying defects or research and develops new equipment or components to improve methods of communication. May calculate distance between nearest telephone line and subscriber's location, cost of materials required, labour charges etc., and prepare estimates for installation of telephone connections to new subscribers. May specialize in installing manual, automatic or trunk telecom exchanges, teleprinters (voice frequency telegraph type), carrier system or wireless transmitting and receiving stations. May specialize in manufacturing of telephone and telegraph equipment and their spare parts.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2153

Title Telecommunication Engineers

2153.0500

Sound Engineer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Sound Engineer designs acoustic construction and installs, operates and maintains audio systems for transmission of voice in studio broadcasting, public address systems and for recording sound for motion pictures. Sets microphone and sound recording equipment close to the artist or speaker in suitable manner to effect best results. Records sound impulses (dialogues, speeches, songs, etc.) on special media like discs, film, magnetic wire or tape (film) using sound recording equipment. Examines developed sound for clarity. Records songs, dialogues, etc., in studio from old or unsatisfactory films or new magnetic tape or wire. Plays sound recorded on magnetic tape for broadcasting or for procuring positive, films (tapes) by using special electronic equipment. Checks whether sound recorded on film meets acoustic standards and synchronizes correctly with actions. Instructs Recordist (Sound) for correct recording and specifies developing requirements to Developer on processing of sound films. May specialize in studio design, broadcasting, recording, etc. May repair and overhaul sound recording equipment. May dub films with different sound recordings.

NATIONAL
CLASSIFICATION OF OCCUPATIONS

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2153

Title Telecommunication Engineers

2153.0501

Sound Engineer, Media

Sound Engineer, Media is responsible for recording/mixing sound sources to create

end-products that meet the quality standards and requirements of production.

Qualification Pack Details:

QP NOS Reference MES/Q3402

QP NOS Name Sound Engineer

NSQF Level 4

ISCO 08 Unit Group Details:

Code 2153

Title Telecommunication Engineers

2153.0511

Sound Designer

Sound Designer designs the sound concept for a production and selects the studios/equipment for recordings.

Qualification Pack Details:

QP NOS Reference MES/Q3401

QP NOS Name Sound Designer

NSQF Level 5

ISCO 08 Unit Group Details:

Code 2153

Title Telecommunication Engineers

2153.0601

Core Engineer

Core Engineer is responsible for error free performance of radio and data core nodes through preventive maintenance and effective fault management in case of fault occurrence. He is also responsible for performing upgrade, configuration change activities and for carrying out Point of interconnect testing for customers.

Qualification Pack Details:

QP NOS Reference TEL/Q6201

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name Core Engineer
NSQF Level 6

Occupations in this Group are classified into the following Families:

ISCO 08 Unit Group Details:

Code 2153
Title Telecommunication Engineers
2153.9900
Telecommunication Engineers, Other

Telecommunication Engineers, Other include engineers who conduct research and advise on, design, and direct the construction, functioning, maintenance and repair of telecommunication systems and equipment not elsewhere classified

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code 0
Title

Group 216 Architects, Planners, Surveyors and Designers

Architects, Planners, Surveyors and designers plan and design landscapes, building exteriors and interiors, products for manufacture and information for visual communication, publication and display. They conduct

survey work to precisely position geographical features, design, prepare and revise maps, and develop and implement plans and policies for controlling the use of land.

2161 Building Architects
2162 Landscape Architects
2163 Product and Garment Designers
2164 Town and Traffic Planners
2165 Cartographers and Surveyors
2166 Graphic and Multimedia Designers

Family 2161 Building Architects

Building architects design commercial, industrial, institutional, residential and recreational buildings and plan and monitor their construction, maintenance and rehabilitation.

2161.0100 Architect

Architect prepares designs for construction of buildings, monuments, etc., estimates cost and co-ordinates functional and organizational details for execution. Collects information from party concerned about requirements and type(s) of buildings to be constructed, available funds, special features desired, if any, etc., and records points for consideration. Prepares designs, estimates cost and submits them to party for approval. Prepares detailed drawings or gets them prepared by Draughtsman, Architectural to specified scale showing location of building (s) on site plan and submits them to competent authorities. Draws up specifications regarding flooring, finish, architectural features etc., estimates quantities of materials required and other details and indicates them in drawing for correct execution of plan. May guide, supervise and inspect construction work from time to time to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ensure execution according to plan. May consult engineer and specialist and get light and power fittings, sanitary fittings, etc. done by them. May specialize in landscape architecture. May approve payment on correct execution of work.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code	2161
Title	Building Architects

2161.9900

Building Architects, Other

Building Architects, Town and Traffic Planners, Other conduct research and advise on design of residential, commercial and industrial buildings, layout of towns, landscapes and traffic systems, and plan and monitor their construction, maintenance and covers all other architects, town and traffic planners not elsewhere classified.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code	2161
Title	Building Architects

Family 2162

Landscape Architects

Landscape architects plan and design landscapes and open spaces for projects such as, parks, schools, institutions, roads, external areas for commercial, industrial

and residential sites, and plan and monitor their construction, maintenance and rehabilitation.

Family 2163

Product and Garment Designers

Product and Garment Designers design and develop products for manufacture and prepare designs and Specifications of products for mass, batch and one-off production.

2163.0100

Package Designer/Packaging Designer

Package Designer designs containers for products, such as foods, beverages, toiletries, cigarettes, and medicines. Confers with representatives of engineering, marketing, management, and other departments to determine packaging requirements and type of product market. Sketches design of container for specific product, considering factors, such as convenience in handling and storing, distinctiveness for identification by consumer, and simplicity to minimise production costs. Renders design, including exterior markings and labels, using paints and brushes. Typically fabricates model in paper, wood, glass, plastic, or metal, depending on material to be used in package. Makes changes or modifications required by approving authority.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code	2163
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Product and Garment Designers

2163.0201

Design Merchandiser

Design Merchandiser develops jewellery design concepts and plays key role in product development in the cast and diamond-set jewellery manufacturing in India. The individual at work assesses market trends by, researching the market, taking cues from exhibitions and interacting with customers and designers. The individual develops design concepts, assesses the value of inputs to price jewellery for different budgets, and presents design brief to senior management or client for finalisation.

Qualification Pack Details:

QP NOS Reference

G&J/Q2303

QP NOS Name Design

Merchandiser

NSQF Level 4

ISCO 08 Unit Group Details:

Code 2163

Title Product and Garment Designers

2163.0301

Hand Sketch Designer (Basic)

Hand Sketch Designer (Basic) uses stationery and measuring tools to create a range of basic jewellery design by hand.

Qualification Pack Details:

QP NOS Reference G&J/Q2303

QP NOS Name Hand Sketch Designer (Basic)

NSQF Level 4

ISCO 08 Unit Group Details:

Code 2163

Title Product and Garment Designers

2163.0400

Furniture Designer

Furniture Designer designs furniture line or individual pieces for manufacture according to knowledge of design trends, offerings or competition, capability of production facilities and characteristics of company's traditional market. Studies market trends and customer needs and discusses design suggestions with production management and trade channels. Evaluates proposals and prepares freehand sketches of promising designs. Obtains approval from customer, design committee or company management and originates scale drawing of approved designs, using drawing instruments. Traces drawing on tracing cloth, preparatory to production of blue print; Prepares or directs preparation of blueprints containing manufacturing specifications, such as dimensions, kind of wood and upholstery fabrics to be used in manufacturing furniture line or article. May plan modifications for completed furniture to conform to changes in design trends and increase customer acceptance.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2163

Title Product and Garment Designers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2163.0500

Fashion Designer

Fashion Designer should have the skills and knowledge to develop fashion design briefs and manage the development of design concepts for commercial production. The initial process includes conducting market research and trend analysis for the particular season and identifying a theme for the collection; then creating a mood board and colour board based on the theme, develop an entire range according to the business plan and as per the theme board. After finalization on the range with the team, create the techpack for each style. Work with different teams to create a prototype design based on the techpack. Evaluation of the sample and Documentation of the same is also done by the Designer.

Qualification Pack Details:

QP NOS Reference AMH/Q1201
QP NOS Name Fashion Designer
NSQF Level 5

ISCO 08 Unit Group Details:

Code 2163
Title Product and Garment Designers

2163.0600

Textile Designer

Textile Designer develops patterns and creates designs for use in manufacture of cloth. Studies cuttings of designs brought out by other Indian as well as foreign mills. Reviews literature on textile designing and watches views literature on textile designing and watches current trends in style. Develops designs of new patterns and colour combinations.

Prepares rough drawing of designs. Reproduces final designs on graph paper indicating interlacement of warp and weft. Supervises inserting of pattern on dobby or jacquard looms. Examines samples of woven pattern and corrects or amends design on graph, if necessary. Checks functioning of cards punched by Card Cutter and pegging of lattice done by Lattice Rigger.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code 2163
Title Product and Garment Designers

Family 2164

Town and Traffic Planners

Town and Traffic Planners develop and implement plans and policies for the controlled use of urban and rural land and for traffic systems. They conduct research and provide advice on economic, environmental and social factors affecting land use and traffic flows.

2164.0100

Town Planner

Town Planner designs layout and co-ordinates development of towns, cities and colonies, taking into consideration various aspects, such as financial resources, location of residential areas, industries, schools, parks etc. Conducts town planning survey of specified area for designing layout. Collects data from State Governments, Municipal Corporation and other sources, regarding climate, soil

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

condition, contours, rivers, transport and public health facilities, public utility services, age and condition of buildings if any, density of population, traffic, wind direction etc. Analyses this data and consults specialists as necessary, such as Engineer, Industrialist, Geologist, Sociologist, Geographer, Statistician, etc. for expert opinion. Prepares road pattern accordingly and fills in details indicating locations of open spaces, parks, school, hospital and other buildings, etc. Prepares detailed drawings of area and obtains approval of sponsoring authority. Submits copies of plan to Corporation or State authorities for their concurrence; passes on approved plan to Architect for designing and preparing estimates. May design and prepare estimates etc. if qualified as Architect.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2164

Title Town and Traffic Planners

2164.0200

Traffic Planner

Traffic Planner studies Vehicular-traffic conditions on urban or national highways and develops plan for altering conditions to promote safety and reduce congestion. Studies traffic condition from fixed position to detect unsafe or congested conditions and observes location of alternative routes. Evaluates statistical and physical data regarding such considerations as vehicle count per mile, load-capacity of pavement, and feasibility of widening pavement and projected traffic loads in future. Conducts

experiments with alternative traffic plans on nearby routes and on same route with modification in signals, traffic directions or other controlled devices and techniques. Evaluates results of experiments and directs or recommends permanent changes to improve conditions. Confers with citizens and government officials to resolve complaints concerning traffic problems requiring cooperation of public or other jurisdiction. May prepare public information materials to enlist cooperation of public in reducing congestion and accidents. May integrate results of traffic studies with work of other agencies to develop transportation plans.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2164

Title Town and Traffic Planners

Family 2165

Cartographers and Surveyors

Cartographers and Surveyors determine the exact position of, or prepare and revise digital, graphic and pictorial maps, charts or other visual representations of, natural and constructed features and boundaries of land, seas, underground areas and celestial bodies, applying scientific and mathematical principles.

2165.0100

Cartographer

Cartographer prepares maps from aerial photographs, technical drawings, data etc. Checks workability and combination of air

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

photographs to bring them to proposed scale of map. Marks streams, railways, sites, contours, vegetation and other items of aerial photographs with ink for details. Draws maps to prescribed scale ensuring correct geographical position with regard to boundary lines, latitudes and longitudes. Indicates physical, political, industrial and other details on maps using respective conventional signs. Traces ink-marked items on tracing film for use in administration, research, survey, excavation, construction, mining, exploration of minerals etc.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2165

Title Cartographers and Surveyors

2165.0200

Surveyor, Topographical

Surveyor, Topographical surveys land to determine out line, contours and relative position of control points (land marks) on tract of land, cost, harbour, etc. for preparing topographical and other maps and records. Establishes control points and pillars to do instrumentation work on ground to prepare maps. Provides identification marks on ground for photographs taken in aerial survey. Fixes position of control points on ground in relation to some permanent position and with reference to celestial bodies using astrolabes (for lat. and long), transit telescopes (for time and longitudes), field magnate instruments (for magnetic forces and elements), theodolites and precise levels, tellurometers (electronic distance measuring instruments) barometers for

atmospheric pressure, etc. Adjusts and sets theodolites, compasses, plane tables, levelling and other instruments for surveyor, observes and records measurements and angles from three determined points (triangulation), locations to scale on proper sketch. Corrects margin of error due to worn-out tapes which become incorrect, and readings on instruments which are affected by light, sound, heat, tension, environments and gravitational changes due to varying reserves underneath ground. May be known as Superintendent Surveyor Officer Surveyor or Surveyor according to degree of authority.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2165

Title Cartographers and Surveyors

2165.0300

Aerial-Photograph Interpreter

Aerial-Photograph Interpreter analyses aerial photographs to detect significant industrial, resource, or topographical data. Studies photographs to locate roads, industrial centres, rivers, forest areas, and to determine nature of terrain. Interprets photographs to evaluate the potentiality of resources. May draw maps for use of field officers in planning and exploitation of resources. May interpret photographs for timber evaluation, water shed management, construction, or mining. May request enlargement of photograph for more detailed analysis. May use computers and data banks to store, retrieve, and compare information.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2165

Title Cartographers and Surveyors

2165.0400

Surveyor, Photogrammetric

Surveyor, Photogrammetric; Surveyor, Reproduction prepares topographical and project maps from air photographs of area by determining longitude and latitude of number of points on ground by triangulation or traverse method. Connect photographs together in proper sequences aligning, features, pointing out details and information such as names of places, rivers, tracks administrative and forest boundaries and other verification data to have continuous picture of area photographed. Identifies control points using stereoscopes and verifies points on ground if they are not clear on photographs due to different scales of photograph from point to point, distortions or otherwise. Brings photograph on same scale applying graphical methods or using Photogrammetric machine.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2165

Title Cartographers and Surveyors

2165.0500

Surveyor, Mine

Surveyor, Mine surveys mines and prepares maps indicating location, topographical and underground features describing outline, results of deposits, natural or other barriers, linking space for passages and seams, crevices for driving shafts for mechanical quarrying, etc. for open pit and underground mines. Performs function of Surveyor, Topographical and directs Topo-Auxiliaries or helpers in location of points and in placing of instruments, theodolites, compasses, etc. Works as Topo-Traverser for connecting points by metered chains and takes measurements. Records size, location, elevation, angles, and plots data on drawing-paper marking boundaries, showing exact location of roads structures, natural or artificial barriers, surface and underground mineral, bringing out topographical features. May specialize in survey of coalmines, metal mines or quarries.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2165

Title Cartographers and Surveyors

2165.0600

Surveyor, Hydrographic

Surveyor, Hydrographic; Surveyor, Marine surveys and maps areas bounded, banked or inundated by waters of rivers, lakes, sea, water-sheds, etc. indicating shore lines and including other information in chart for use of navigators and for constructing piers and light houses. Determines underwater features of sea, nature of river beds and depth of waters

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

from several points (control points) by sounding echoes and or depth charges from survey ships for determining navigability and constructing piers and light houses. Collects details regarding behaviour of ocean currents and prepares charts. Register surfacing of rocks in chart for warning to boats chartering those waters. Incorporates tidal behaviour during different times of year in maps to add navigation. Produces charts and other ancillary publications such as 'Notices to Mariners' to inform them of changes in waters, light houses, etc. May be known as Civil Hydrographic Assistant, Civil Hydrographic Officer; Principal Civil Hydrographic Officer; Assistant Chief Hydrographic; Chief, Civil Hydrographic according to degree of responsibility.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2165

Title Cartographers and Surveyors

Family 2166

Graphic and Multimedia Designers

Graphic and Multimedia Designers design information content for visual and audio communication, publication and display using print, film, electronic, digital and other forms of visual and audio media. They create special effects, animation, or other visual images for use in computer games, movies, music videos, print media and advertisements.

2166.0100

Commercial Artist

Commercial Artist prepares designs for advertising articles or draws illustrations for books, magazines, posters, charts, hoardings etc. in suitable columns. Studies specifications and discusses details and cost with client. Determines subject matter in consultation with client and draws designs and sketches with or without colour to desired effect. Executes approved design in required medium such as paints, oils, water-colour etc.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2166

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Graphic and Multimedia Designers

2166.0111 Art Director

Art Director needs to conceptualise the creative vision and style of the production and ensure all creative elements conform to it

Qualification Pack Details:

QP NOS Reference	MES/Q0501
QP NOS Name	Art Director
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0201 Multi Media Artist and Animator/Animator

Multi-Media Artists and Animators create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials. Apply story development, directing, cinematography, and editing to animation to create storyboards that show the flow of the animation and map out key scenes and characters. Assemble, typeset, scan and produce digital camera-ready art or film negatives and printer's proofs. Convert real objects to animated objects through modelling, using techniques such as optical scanning. Create and install special effects as required by the script, mixing chemicals and fabricating needed parts from wood, metal, plaster, and clay. Create basic

designs, drawings, and illustrations for product labels, cartoons, direct mail, or television. Create pen-and-paper images to be scanned, edited, coloured, textured or animated by computer. Create two-dimensional and three-dimensional images depicting objects in motion or illustrating a process, using computer animation or modelling programmes. Design complex graphics and animation, using independent judgment, creativity, and computer equipment. Develop briefings, brochures, multimedia presentations, web pages, promotional products, technical illustrations, and computer artwork for use in products, technical manuals, literature, newsletters and slide shows.

Qualification Pack Details:

QP NOS Reference	MES/Q0701
QP NOS Name	Animator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0202 Modeller

Modeller in the Media and Entertainment Industry is also known as a CG Modeller. Individuals at this job are responsible for creating computer generated models (characters, machines, props, objects etc.) for animation

Qualification Pack Details:

QP NOS Reference	MES/Q02501
QP NOS Name	Modeller
NSQF Level	6

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 2166

Title Graphic and Multimedia Designers

2166.0203

Rigging Artist

Rigging Artist in the Media and Entertainment Industry is also known as a CG Rigger. Individuals at this job are responsible for creating computer generated controls/rigs for movements in models used for animation.

Qualification Pack Details:

QP NOS Reference

MES/Q02502

QP NOS Name Rigging Artist

NSQF Level 4

ISCO 08 Unit Group Details:

Code 2166

Title Graphic and Multimedia Designers

2166.0204

Texturing Artist

Texturing Artist in the Media and Entertainment Industry is also known as a Shading artist. Individuals at this job are responsible to add textures to models to create photo-realistic models that can be used for animation

Qualification Pack Details:

QP NOS Reference

MES/Q02503

QP NOS Name Texturing Artist

NSQF Level 4

ISCO 08 Unit Group Details:

Code 2166

Title Graphic and Multimedia Designers

2166.0205

Animation Director

Animation Director needs to support the Director and guide efforts of the production team towards achieving the common creative vision.

Qualification Pack Details:

QP NOS Reference MES/Q1302

QP NOS Name Animation Director

NSQF Level 5

ISCO 08 Unit Group Details:

Code 2166

Title Graphic and Multimedia Designers

2166.0206

Character Designer

Character Designer needs to design the character pack including the look, expressions, poses, gestures, turnarounds, personality traits of characters for a production

Qualification Pack Details:

QP NOS Reference MES/Q0502

QP NOS Name Character Designer

NSQF Level 4

ISCO 08 Unit Group Details:

Code 2166

Title Graphic and Multimedia Designers

2166.0207

Clean-up Artist

Clean-up Artist needs to clean-up/detail-out the designs of the Character

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

designers/Layout designers and keep them ready for production

Qualification Pack Details:

QP NOS Reference	MES/Q0506
QP NOS Name	clean-up Artist
NSQF Level	3

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0208

Composer

Composer needs to merge the various layers/elements created during post-production into a final product

Qualification Pack Details:

QP NOS Reference	MES/Q3505
QP NOS Name	Composer
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0209

Storyboard Artist

Storyboard Artist needs to translate the script/story/idea/concept into a visual medium using a series of illustrated frames

Qualification Pack Details:

QP NOS Reference	MES/Q0507
QP NOS Name	Storyboard Artist
NSQF Level	3

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0210

Rendering Artist

Rendering Artist needs to convert three-dimensional geometric models into a set of viewable images

Qualification Pack Details:

QP NOS Reference	MES/Q3503
QP NOS Name	Rendering Artist
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0211

VFX Editor

VFX Editor needs to create illusionary elements/images/segments for production

Qualification Pack Details:

QP NOS Reference	MES/Q3501
QP NOS Name	VFX Editor
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0212

Roto Artist

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Roto Artist needs to break content down into individual frames/elements and alter/re-create content in accordance to requirements

Qualification Pack Details:

QP NOS Reference	MES/Q3504
QP NOS Name	Roto Artist
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0300

Web Designer

Web Designer provides strategic and sustainable aesthetic to the web site that supports business goals, information architecture, customer service applications, and brand strategy. Drives visual recommendations and solutions to both current page type and future redesign efforts. Translates complex concepts to convincing and compelling visualisations. Determines look-and-feel of website, online products, and other interactive initiatives. Creates original graphics and icons for use on the site and other group projects. Defines and implements web design parameters, style guides, and visual standards. Establishes and produces graphic material for use in online advertising and promotion of services and products. Builds strong collaborative relationships with team and client. Documents strategic decisions using diagrams and text. Documents design and creation. Prepares Hand-drawings, hand-letter storyboard and design forms where needed. Manipulates images, style photos, provides art direction, and acquires photos.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0401

Designer (CAD)

Designer (CAD) uses CAD software and tools to produce a range of jewellery designs that are also practical for manufacturing. CAD drawings provide all the information that forms the basis for every stage of manufacturing the jewellery.

Qualification Pack Details:

QP NOS Reference	G&J/Q2303
QP NOS Name	Designer(CAD)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2166
Title	Graphic and Multimedia Designers

2166.0501

Graphic Designer

Graphic Designer designs or creates graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects. Create designs, concepts, and sample layouts based on knowledge of layout principles and aesthetic design concepts. Determines size and arrangement of illustrative material and copy, and select style and size of type.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Uses computer software to generate new images. Marks up, paste, and assemble final layouts to prepare layouts for printer. Draws and print charts, graphs, illustrations, and other artwork, using computer. Reviews final layouts and suggest improvements as needed. Confers with clients to discuss and determine layout design. Develops graphics and layouts for product illustrations, company logos, and Internet websites. Feeds information into computer to create layouts for client or supervisor. Prepares illustrations or rough sketches of material, discussing them with clients and/or supervisors and making necessary changes.

Qualification Pack Details:

QP NOS Reference MES/Q0503
QP NOS Name Layout Designer
NSQF Level 4

ISCO 08 Unit Group Details:

Code 2166
Title Graphic and Multimedia
 Designers

2166.0511

Colour Key Artist

Colour Key Artist needs to conceptualise the colour keys for all elements within a production

Qualification Pack Details:

QP NOS Reference MES/Q0505
QP NOS Name Colour Key Artist
NSQF Level 3

ISCO 08 Unit Group Details:

Code 2166
Title Graphic and Multimedia
 Designers

2166.0512

Colourist

Colourist needs to enhance and/or correct the colour to reflect the desired creative style and mood of the production

Qualification Pack Details:

QP NOS Reference MES/Q3502
QP NOS Name Colourist
NSQF Level 4

ISCO 08 Unit Group Details:

Code 2166
Title Graphic and Multimedia
 Designers

Sub Division 22

Health Professionals

Health Professionals conduct research, improve or develop concepts, theories and operational methods, and apply scientific knowledge relating to medicine, nursing, dentistry, veterinary medicine, pharmacy, and promotion of health.

Tasks performed by workers in this sub-major group usually include conducting research and obtaining scientific knowledge through the study of human and animal disorders and illnesses and ways of treating them; advising on or applying preventive and curative measures, or promoting health; preparing scientific papers and reports. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

221	Medical Doctors
222	Nursing and Midwifery Professionals
223	Traditional and Complementary Medicine Professionals

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

224	Paramedical Practitioners
225	Veterinarians
226	Other Health Professionals

Group 221

Medical Doctors

Medical Doctors study, diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans through the application of the principles and procedures of modern medicine. They plan, supervise and evaluate the implementation of care and treatment plans by other health care providers, and conduct medical education and research activities.

Occupations in this Group are classified into the following Families:

2211 Generalist Medical Practitioners

2212 Specialist Medical Practitioners

Family 2211

Generalist Medical Practitioners

Generalist Medical Practitioners diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments and maintain general health in humans through application of the principles and procedures of modern medicine. They do not limit their practice to certain disease categories or methods of treatment, and may assume responsibility for the provision of continuing and comprehensive medical care to individuals, families and communities

2211.0100

Physician, General

Physician, General diagnoses and treats ailments or disorders of human body

according to scientific system of medicine. Examines patients using stethoscope, blood pressure measuring instrument or any other medical instrument according to symptoms available, and makes or arranges for clinical tests, x-ray and histopathological examination for correct diagnoses of disease or disorder. Prescribes medicines based on results of examination. Consults other physicians or specialists, as necessary, in complicated and difficult cases. Gives minor surgical or other treatment and advises patients on regimen required to restore and maintain health. Administers drugs and anaesthetics, as required. Keeps records of patients examined, their ailments and treatment given or prescribed. May compound drugs and medicines.

ISCO 08 Unit Group Details:

Code 2211
Title Generalist Medical Practitioners, Allopathic

2211.0200

Surgeon, General

Surgeon, General diagnoses and treats injuries, diseases or disorders of human body by prescribing medicines or surgical operations. Examines patients to determine nature and extent of injury or ailments for treatment; by medicine, through local application or operation. Gets patient X-rayed or histopathologically examined in serious and complicated cases. Decides upon patient's ability to withstand surgical operation. Obtains written permission from legal heir of patient before undertaking major operation for personal safeguards against death of patient and ensures that all precautions have been taken before operation. May administer drugs and anaesthetics as required. May obtain opinion of other specialists before

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

diagnosis and performance of major operations. May specialize in thoracic surgery, plastic surgery etc. and be designated accordingly.

ISCO 08 Unit Group Details:

Code	2211
Title	Generalist Medical Practitioners, Allopathic

2211.0300

Anatomist, Medical

Anatomist, Medical studies structure of human body and its parts to ascertain their position, function and relation to each other in order to provide basic knowledge in diagnosis and treatment of human disease. Examines organs of body and its minute structures, tissues, cell etc., using microscope wherever necessary. Prepares slides of different tissues for histological study. Studies growth and development of human and other mammalian embryo by utilizing X-ray, biochemical and cytochemical methods wherever necessary and publishes their findings in medical journals, papers, etc. May specialize in any branch of anatomical study such as neuro-anatomy, embryology, anthropology, surgical anatomy etc. May undertake research on problems in field of biological sciences.

ISCO 08 Unit Group Details:

Code	2211
Title	Generalist Medical Practitioners, Allopathic

2211.0400

Anaesthetist

Anaesthetist administers anaesthetics to patient undergoing surgical operation

according to nature of operation. Examines patients to determine their capacity to withstand shock of operation and anaesthesia selects local or general type of anaesthetic to be administered, such as ether, chloroform or cocaine according to nature of operation. Checks apparatus for operational efficiency, and administers selected anaesthetic to patient. Informs surgeon of patient's readiness for operation. Feels pulse and watches respiration and eyeballs of patient while under anaesthesia and surgery to check their general condition with particular reference to patient's heart and lungs. Examines and treats patient for ill effects and weakness after operation. May make provision for blood and fluid transfusion during operation and oxygen therapy, if necessary. May specialize in any specialized anaesthetic technique for chest or neuro-surgery.

ISCO 08 Unit Group Details:

Code	2211
Title	Generalist Medical Practitioners, Allopathic

2211.0500

Psychiatrist

Psychiatrist diagnoses and treats human mental diseases and disorders. Conducts examination of body for abnormal behaviour or mental activity and related abnormality to disease and disorder of other systems of body. Studies psychological test histo-pathological examination, X-ray observations and other clinical data along with history of diseases and other personal information and diagnoses disorder. Prescribes and conducts treatment of patient as required by ailment; by medicinal or surgical methods. Helps patient adjust self and control emotions and habits. May refer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

patients to other specialists to diagnose disease relating to other parts of body. May specialize in any technique of treatment and diagnosis of disorder. May conduct child guidance clinics, marriage counselling and marriage guidance clinics, genetic guidance clinic, vocational guidance clinics and vocational selection clinics.

ISCO 08 Unit Group Details:

Code	2211
Title	Generalist Medical Practitioners, Allopathic

2211.9900

Generalist Medical Practitioners, Allopathic, Other

Surgeons and Medical Specialists, Allopathic. Other diagnose and treat human ailments and include all other physicians, surgeons, and other medical specialists not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2211
Title	Generalist Medical Practitioners, Allopathic

Family 2212

Specialist Medical Practitioners

Specialist Medical Practitioners diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans, using specialized testing, diagnostic, medical, surgical, physical and psychiatric techniques, through application of the principles and procedures of modern medicine. They specialize in certain disease categories, types of patient or methods of treatment and may conduct medical education and

research in their chosen areas of specialization.

2212.0100

Neurologist

Neurologist; Nerve Specialist diagnoses and treats nervous diseases of human beings. Conducts examination of different parts of nervous system to find cause of disorder or location of defect, and relates disorder to diseases or disorder in other parts/system of body. Studies clinical tests of cerebrospinal fluid, reports of histopathological examination, X-ray of skull and spinal cords and system, along with history of disorder/disease and possibility of inheriting nervous defects and diagnoses disease. Prescribes and conducts treatment of patient, as required, adopting medicinal and surgical methods. May consult other specialists to diagnose diseases. May specialize in any technique of diagnosing and treating particular type of nervous diseases.

ISCO 08 Unit Group Details:

Code	2212
Title	Special Medical Practitioners

2212.0200

Dermatologist

Dermatologist diagnoses and conducts treatment of ailment of human skin. Examines patients to locate cause of skin disorder and relate skin disorder to diseases or disorders in other parts/system of body. Conducts clinical tests, microscopic examination of scrapings of diseased part of skin, histopathological examination, patch test in case of allergic disorder along with history of disorder/disease and other relevant

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

personal data and diagnosis disorder. Prescribes medicines for treatment of various kinds of skins diseases such as blemishes, scabies, eczema etc. May consult other specialist to diagnose disease.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.0300

Allergy Specialist

Allergy Specialist diagnoses and treats diseases and conditions with allergic or immunologic causes: Examines patient, utilizing medical instruments and equipment, patch tests, and blood tests as diagnostic aids. Elicits and records information about patient's history. Analyses reports and test results and prescribes treatment or medication for conditions, such as bronchial asthma, dermatological disorders, connective tissue syndromes, transplantation, and autoimmunity. Refers patients to ancillary and consultant services when indicated.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.0400

Ear, Nose and Throat Specialist

Ear, Nose and Throat Specialist diagnoses and conducts treatment of diseases and

disorders of ear, nose and throat. Conducts examination of ear, nose and throat for observable defect/symptoms, and relates disorder and disease to infection in other parts of body. Conducts clinical test and histo-pathological examination of diseased parts, along with other personal relevant particular and diagnoses diseases. Prescribes medicines and treats patients by medicinal or surgical methods as required. May obtain help of other specialist who diagnose disease.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.0500

Cardiologist

Cardiologist; Heart Specialist diagnoses and conducts treatment of diseases and disorder of heart and blood circulation system of human body. Examines blood circulation system to find cause of disorder or location of defects and relates disorder to diseases or disorder in other parts of body. Conducts clinical tests of blood, histo-pathological examination, X-ray examination of heart, blood pressure, electro-cardiogram test, cardio-catheterization examination and phonocardiogram tests of heart, along with history of disorder/disease and other relevant personal data, and diagnoses disorder. Prescribes medicines and conducts treatment of patient as required by ailment. May obtain help of other specialist for diagnoses of disease. May specialize in any technique of treating disease of blood circulatory system or diagnoses of particular kinds of blood diseases.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical
Practitioners

2212.0600

Radiologist

Radiologist diagnoses diseases and disorders of human system by studying X-ray pictures of affected parts or seeing it on fluoroscopic screen and gives treatment such as therapeutic radiation of diseased part of body. Checks patients for nature of complaint and for allergy to drugs in radiation treatment. Decides on type of X-ray picture to be taken in respect of diseased or affected part of body such as ulcers, fractures, lung diseases, etc. Gives patient where necessary certain drugs orally or by injection like barium-meal, barium iodine, enema, etc. to render particular organ of body opaque to X-rays. Takes X-ray picture or directs X-RAY TECHNICIAN to take X-ray picture of affected part. Studies developed X-ray film in viewing box and assesses nature, location and magnitude of disease or injury. Advises type of therapeutic treatment to be given or gives such treatment at their own clinic. Adjusts and operates X-ray and other therapeutic machine such as deep X-ray, cobalt, Gama rays, etc. to direct rays of required intensity on affected part of body for specified period or applies radium needle when necessary. May treat ailments such as cancer, tumour, blood diseases, skin diseases, cardio-respiratory system, etc. May operate image intensifier for study of movements of certain parts of body like heart, lungs, etc.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical
Practitioners

2212.0700

Tuberculosis Specialist

Tuberculosis Specialist diagnoses and conducts treatment of ailments due to infection by tubercular disease. Conducts examination of different parts of body to locate nature of disorder and relates disorder/disease to infections in other parts of body. Administers tuberculin test and conducts clinical tests of sputum, blood, lymph, etc. Takes X-ray of chest and other parts of body, along with history of disease. Prescribes medicinal or surgical treatment. May obtain help of other specialists to diagnose disease.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical
Practitioners

2212.0800

Ophthalmologist

Ophthalmologist; Eye Specialist diagnoses and conducts treatment of diseases and disorders of human eye. Conducts examination of eye ball and its related parts using ophthalmoscope to locate cause of disorder or location of defect and relates defects to disease/disorder or other system of body. Conducts clinical tests, histopathological examination, X-ray observations, history of disease along with other relevant personal data and diagnoses disorder. Tests and prescribes spectacles, contact lenses or specialized glasses for visual defects. Tests and treats for muscular imbalances of eye. May refer patients to other specialists for consultation or advise. May specialize in any technique of treatment, medical or surgical or diagnoses of types of disorder.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.0900

Urologist

Urologist diagnoses and treats diseases and disorders of genitourinary organs and tract. Examines patient, using x-ray machine, fluoroscope, and other equipment to aid in determining nature and extent of disorder or injury. Treats patient, using diathermy machine, catheter, cystoscope, radium emanation tube, and similar equipment. Performs surgery, as indicated. Prescribes and administers urinary antiseptics to combat infection.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.1000

Venereologist

Venereologist; diagnoses and conducts treatment of human venereal diseases. Examines patient and makes or arranges for special test e.g. blood, urine, stool, etc., and investigates into causes of infections and social diseases acquired venereally. Considers reports of tests, histopathological examination and prescribes medicine, both preventive and curative. May perform operation.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.1100

Obstetrician

Obstetrician diagnoses and conduct treatment of diseases and disorder of human female reproduction system during pre-natal, natal and post-natal periods, conducts examination of pelvic organs and girdle for integrity and adequacy. Obtains blood tests for haemoglobin and blood cell contact, blood pressure and clinical tests for urine, to evaluate course of pregnancy and to control untoward pregnancy manifestation. Supervises arrangements for proper delivery of child; and arranges for blood transfusion, if necessary. Provides external manipulation and uterine massage along with administration of drugs during labour. May perform operation or use forceps for delivery of child. May prescribe and induce therapeutic abortion in case of chronic diseases.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.1200

Gynaecologist

Gynaecologist; diagnoses and conducts treatment of disease and disorder of female genital organs. Conducts examination of body for symptoms of disease and disorder of other systems of body. Considers clinical test, histopathological examination along with detailed history of ailment and diagnosis disorder. Treats ailments by medicinal or by surgical methods. May refer patient to other specialist to diagnose disease.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 2212
Title Special Medical
Practitioners

2212.1300 Paediatrician

Paediatrician diagnoses and conducts treatment of diseases peculiar to children. Studies nature of growth and development of children and establishes form of growth. Investigates into cause of deviations by examining behaviour pattern, and conducting X-ray examination of growth of limbs and organs. Considers available hazards to normal growth and suggests preventive measures, examines body, considering clinical tests, histo-pathological examination and other necessary techniques of examination along with history of ailment and diagnoses disorder/defect. Prescribes and conducts treatment of patient, as required by ailment. May obtain help of other specialists to diagnose disease. May specialize in any field of paediatrics such as endocrinology or endocrinopathy (any disease due to disorder functions of endocrine glands).

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical
Practitioners

2212.1400 Orthopaedist

Orthopaedist diagnoses and conducts treatment and correction of diseases/deformities of skeletal system. Examines different parts of body structure to locate cause of disease/disorder and relates diseases or disorder to diseases of other parts/system of body. Considers

clinical test of body, histopathological examination, X-ray reports of bony structure, along with history of disorder/disease and other personal data for diagnoses of disease. Corrects deformities by operation, physiotherapy or by other mechanical devices. May refer patient to other specialist for diagnoses of disease. May specialize in particular kinds of orthopaedic diseases or technique of treatment.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical
Practitioners

2212.1500 Pharmacologist

Pharmacologist studies effect of drugs on human beings and animals and evolves formula for manufacture of drugs and medicines for prevention and treatment of diseases. Experiments with animals such as dogs, cats, rabbits, rats, mice, guinea pigs, etc. to determine effects of various chemical substances on their vital processes and their influence in activating and retarding various life processes such as circulation, respiration, digestion, etc. Renders assistance in evolving and standardizing techniques of synthesizing and extracting useful chemical substances used in prevention and treatment of diseases of man and animals. Standardizes dosage of drugs and methods of immunization against disease by correlating results of experiments such as food preservatives and colouring matters to detect their toxic and non-toxic properties. Assists in detection of poisonous substances causing ill-effects, illness or death. Records and reports findings. May specialize in any branch of pharmacology such as study of effects of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

drugs on body, development of new drugs in treatment of particular disease or group of diseases and the like.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.1600 Toxicologist (Pharmaceutical)

Toxicologist (Pharmaceutical) conducts research on toxic effects of cosmetic products and ingredients on laboratory animals for manufacturer of cosmetics. Applies cosmetic ingredient or cosmetic being developed to exposed shaved skin area of test animal and observes and examines skin periodically for possible development of abnormalities, inflammation, or irritation. Injects ingredient into test animal, using hypodermic needle and syringe, and periodically observes animal for signs of toxicity. Injects antidotes to determine which antidote best neutralizes toxic effects. Tests and analyses blood samples for presence of toxic conditions, using microscope and laboratory test equipment. Dissects dead animals, using surgical instruments, and examines organs to determine effects of cosmetic ingredients being tested. Prepares formal reports of test results.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.1700 Pathologist, Medical

Pathologist, Medical conducts chemical, microscopic and bacteriological tests in laboratory and examines blood, tissues, urine etc. of patients to find out causes of diseases. Obtains specimens of body material such as blood, tissues and other secretion of human body from patient and makes appropriate tests to determine source and nature of disease or disorder by using microscope and other instruments. Diagnoses nature of disease on basis of chemical analysis and reports findings to Physician for treatment of patient. Plans and conducts experiments on suitable animals to study pathological processes. Performs autopsies (post mortem examinations of body) to study structural changes for correlating functional disorders of body. Reports their findings in medical journals etc. may specialize in study of pathology on specific fields of human organism such as haematology, Virology, Histopathology (microscopic recognition of disease condition of tissues removed at operation or autopsy), chemical pathology etc. and may be known as Haematologist, Virologist, Histopathologist, Chemical Pathologist, etc.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.1800 Malariaologist, Medical

Malariaologist, Medical conducts research on causes and effects of malaria in human system by studies in laboratory and directs antimalarial operations. Plans, organizes and undertakes measures for control and eradication of malaria. Studies causes and effects of malaria in laboratory by microscopic, biochemical and biological techniques in mosquitoes, mammals and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

other suitable animals to determine nature of disease, its pathological aspects and process of immunization as consequence of protracted attacks of malaria. Studies effects of insecticides on mosquitoes to evolve better techniques of their utilisation. Studies biology of mosquitoes, nature of its blood-meal and transference of malaria parasite to human body. Conducts surveys of malaria infested areas and arranges spraying of insecticides and treatment of malaria cases. May conduct night blood and entomological surveys and institutes suitable anti-larval and others remedial measures. May specialize in any field of malariology, filariology, chemotherapy, serology, epidemiology, protozoology, etc.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.1900

Physiologist, Medical

Physiologist, Medical studies normal functioning of different organs and tissue of human body and investigates effect of physical environments such as variations in altitude, speed, temperature, etc. on its vital functions. Conducts experiments on suitable animals to study effects of changing physical conditions on vital functions of body such as digestion excretions, genitals, cardiac system etc. studies limits of physical endurance and physiological reactions under extreme environmental conditions due to altitude; temperature, noise, nutrition, etc., using microscope or other instruments and finds cause and prevention of functional abnormality. Records and reports findings and uses them as basis for research into related problems. May specialize in study

of any physiological system and be known as Neurophysiologist who specializes in physiology of human nervous system, Cardiovascular Physiologist who specializes in physiology of human circulatory systems etc. May conduct experiments to solves particular problems relating to human life.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

2212.9900

Specialist Medical Practitioners, Other

Pharmacologists, Pathologists and Related Professionals, Other include all other Pathologists, Pharmacologists, and related scientists engaged in research in particular fields for practical application of results thereof, and manufacture of crude vaccines, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2212
Title Special Medical Practitioners

Group 222

Nursing and Midwifery Professionals

Nursing and Midwifery professionals provide treatment and care services for people who are physically or mentally ill, disabled or infirm, and others in need of care due to potential risks to health including before, during and after childbirth. They assume responsibility for the planning, management and evaluation

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

of the care of patients, including the supervision of other health care workers, working autonomously or in teams with medical doctors and others in the practical application of preventive and curative measures.

Occupations in this Group are classified into the following Families:

2221 Nursing Professionals

2222 Midwifery Professionals

Family 2221 Nursing Professionals

Nursing Professionals provide treatment, support and care services for people who are in need of nursing care due to the effects of ageing, injury, illness or other physical or mental impairment, or potential risks to health. They assume responsibility for the planning and management of the care of patients, including the supervision of other health care workers, working autonomously or in teams with medical doctors and others in the practical application of preventive and curative measures.

2221.0100 Nurse, Specialist

Nurse, Specialist specializes in particular type of professional nursing in hospital, clinic, sanatorium or similar medical establishment. Performs tasks similar to those of Nurse General, but specializes in particular branch of nursing such as obstetric, orthopaedic, paediatrics or psychiatric nursing, or in particular nursing task, such as giving anaesthetics or assisting Surgeon during operations.

Code 2221
Title Nursing Professionals

2221.9900 Professional Nurses, Other

Professional Nurses, Other include all other Nurses engaged in treatment of patients, disabled persons and invalids, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2221
Title Nursing Professionals

Family 2222 Midwifery Professionals

Midwifery Professionals plan, manage, provide and evaluate midwifery care services before, during and after pregnancy and childbirth. They provide delivery care for reducing health risks to women and new-born children, working autonomously or in teams with other health care providers.

Group 223 Traditional and Complementary Medicine Professionals

Traditional and Complementary Medicine Professionals prevent, diagnose and treat illness, disease, injury, and other physical and mental impairments and maintain general health in humans by applying knowledge, skills and practices acquired through extensive study of the theories, beliefs and experiences, originating in specific cultures.

Occupations in this Group are classified into the following Families:

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2230 Traditional and Complementary Medicine Professionals

Family 2230 Traditional and Complementary Medicine Professionals

Traditional and Complementary Medicine Professionals prevent, diagnose and treat illness, disease, injury, and other physical and mental impairments and maintain general health in humans by applying knowledge, skills and practices acquired through extensive study of the theories, beliefs and experiences, originating in specific cultures.

2230.0100 Physician, Ayurveda

Physician, Ayurveda; examines patients by interrogation, sight, feeling pulse rate etc. to diagnose ailment and prescribes necessary medicines according to Ayurveda system of treatment. Questions patient about nature of ailment, previous history of disease and ascertains condition of bowel movement, appetite, etc. Diagnoses ailments by feeling pulse, examine abdomen, colour of skin, eyes, tongue etc. of patient. Observes urine, stool and sputum, if necessary and applies findings for diagnoses and treatment. Decides time of treatment and prescribes medicines with instructions regarding their use and precautions especially with regard to diet to be observed. May prescribe medicines for general improvement of health and prevention of diseases. May prepare and sell tonics, patent and other indigenous medicines such as 'Bhasams', Asavs (extracts of medicinal herbs), etc.

ISCO 08 Unit Group Details:

Code 2230
Title Traditional and Complementary Medicine Professionals

2230.0200 Physician, Homeopathic

Physician, Homoeopathic examines patients to diagnose ailments and prescribes necessary medicines according to homeopathic system of treatment. Records history of disease or disorder, and patients and his family's (both paternal and maternal) past and present, mental and physical reaction to heat, cold, food etc. by careful questioning, and obtains complete subjective and objective picture of symptoms expressed. Prescribes homoeopathic medicine to treat patient for symptoms exhibited. Instructs patients on diet restrictions during course of treatment. Keeps case history of patient and treatment prescribed along with progress report. Prescribes prophylactics in course of epidemics to safeguard against spread of infectious diseases and instructs healthy persons on general hygienic principles for preservation of health. May consider results of X-ray, clinical and pathological examination for proper diagnosis. May dispense homoeopathic drugs and medicines singly and potentised form.

ISCO 08 Unit Group Details:

Code 2230
Title Traditional and Complementary Medicine Professionals

2230.0300 Physician, Bio-Chemic/Bio Chemist

Physician, Bio-chemic examines patients to diagnose ailments and prescribes necessary medicines according to bio-chemic system of treatment. Examines patient, records case history and studies

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

symptoms to diagnose deficiency or imbalance of basic salt(s) in patients system. Prescribes bio-chemic medicines along with necessary instructions, regarding diet, physical precautions etc. Keeps case history of patients and treatment prescribed. May consider results of X-ray and pathological examinations for proper diagnosis.

ISCO 08 Unit Group Details:

Code 2230

Title Traditional and Complementary Medicine Professionals

2230.0400

Physician, Unani

Physician, Unani; Hakim examines patients to diagnose ailments and prescribes necessary medicines according to unani system of treatment. Enquires patients about the nature of their ailment, habits, previous history of their diseases, hereditary factors and interrogates them about their appetite, bowel movement and any other discharges etc. Feels patients' pulse and examines their abdomen, chest, liver, spleen, urine, stool and sputum if considered necessary. Diagnoses disease and prescribes medicines according to patients' temperament. Gives necessary instructions regarding use of medicines, diet and other precaution to be taken. May prepare and sell tonics, and other medicines such as Kushtas (ashes of burnt metal) 'Maul Laul Lahm' (extracts from bird meat, fruits, etc.).

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2230

Title Traditional and Complementary Medicine Professionals

2230.9900

Traditional Medicine Practitioners, Other

Traditional Medicine Practitioners, other treat human ailments by herbs, medicinal plants and other techniques not elsewhere classified.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 2230

Title Traditional and Complementary Medicine Professionals

Group 224

Paramedical Practitioners

Paramedical Practitioners provide advisory, diagnostic, curative and preventive medical services for humans more limited in scope and complexity than those carried out by medical doctors. They work autonomously or with limited supervision of medical doctors, and apply advanced clinical procedures for treating and preventing diseases, injuries and other physical or mental impairments common to specific communities.

Occupations in this Group are classified into the following Families:

2240 Paramedical Practitioners

Family 2240

Paramedical Practitioners

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Paramedical Practitioners provide advisory, diagnostic, curative and preventive medical services for humans more limited in scope and complexity than those carried out by medical doctors. They work autonomously, or with limited supervision of medical doctors, and apply advanced clinical procedures for treating and preventing diseases, injuries and other physical or mental impairments common to specific communities.

2240.0100

Laboratory Assistant, Clinical

Laboratory Assistant, Clinical; Medical Laboratory Technician arranges and sets various instruments and apparatus in clinical laboratory for conducting pathological and bacteriological study and conducts routine tests of blood, urine, sputum etc. for medical purposes and for diagnosis of diseases. Sets in position required apparatus and equipment and makes necessary electrical connections. Prepares standard solutions, reagents, media for culture etc. by weighing, grinding, mixing and dissolving prescribed proportion of sample or chemical in water or other liquids etc. collects samples such as water, urine, blood, sputum etc. in clean and sterile containers or slides for bacteriological, pathological or biological study. Assists in conducting routine test of urine, stool, sputum or blood to determine sugar content, germs or worms or blood groups as required. Mounts and prepares slides with specimens for microscopic study by physicians and specialists. Washes, cleans and dries apparatus and equipment after use and maintains them in proper working condition. Keeps required chemicals and solutions readily available and replenishes stock from stores. Maintains laboratory in

clean and tidy condition. May maintain record of types of tests performed and stock in laboratory.

ISCO 08 Unit Group Details:

Code 2240
Title Paramedical Practitioners

2240.0400

Dresser

Dresser dresses wounds, cuts, sores, boils etc. and applies ointment, liniments, and paints and gives first aid in emergency cases. Cleans wounds, cuts, sores with antiseptic material and applies ointments, paints, gauze, lint or other sterile material as prescribed by Surgeon, or under medical advice. Touches throat with throat-paint, drops medicine, in eyes, nose or ears. Bandages wounds and other affected part of body. May massage any part of body under guidance of doctor. May prepare patients for operations and give them pre-operational care.

ISCO 08 Unit Group Details:

Code 2240
Title Paramedical Practitioners

2240.0501

Emergency Medical Technician-Basic

Emergency Medical Technician-Basic needs to provide emergency medical support and care to individuals who are critically ill or injured and transport them to a medical facility within stipulated time limits.

Qualification Pack Details:

QP NOS Reference	HSS/Q2301
QP NOS Name	Emergency Medical Technician-Basic
NSQF Level	4

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2240
Title Paramedical Practitioners

2240.0502

Emergency Medical Technician-Advanced

Emergency Medical Technician-Advanced needs to provide emergency medical support and care to individuals who are critically ill or injured and transport them to a medical facility within stipulated time limits.

Qualification Pack Details:

QP NOS Reference HSS/Q2302
QP NOS Name Emergency Medical
Technician-
Advanced
NSQF Level 5

ISCO 08 Unit Group Details:

Code 2240
Title Paramedical Practitioners

2240.9900

Paramedical Practitioners, Other

Paramedical Practitioners, Other include practitioners who provide advisory, diagnostic, curative and preventive medical services for humans not elsewhere classified

ISCO 08 Unit Group Details:

Code 2240
Title Paramedical Practitioners

Group 225

Veterinarians

Veterinarians diagnose, prevent and treat diseases, injuries and dysfunctions of animals. They may provide care to a wide range of animals or specialize in the treatment of a particular animal group or in a particular specialty area, or provide professional services to commercial firms producing biological and pharmaceutical products.

Occupations in this Group are classified into the following Families:

2250 Veterinarians

Family 2250

Veterinarians

Veterinarians diagnose, prevent and treat diseases, injuries and dysfunctions of animals. They may provide care to a wide range of animals or specialize in the treatment of a particular animal group or in a particular specialty area, or provide professional services to commercial firms producing biological and pharmaceutical products.

2250.0100

Animal Pathologist

Animal Pathologist conducts research in animal diseases and records findings to facilitate diagnosis and treatment of sick animals. Studies nature and causes of animal diseases. Examines tissues and others diseased parts of animals using microscope to diagnose disease. Conducts pathological serological and bacteriological tests regarding origin and development of diseases; investigates causes of disease and effect of disease germs such as parasites, bacteria, virus etc. in animals. Conducts research on ectoparasites like mosquitos, flies, lice,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

fleas, ticks etc. to assist development of insecticides. Observes action of bacteria on living tissues. Makes chemical analysis of culture solution of bacteria and determines biochemical properties of bacteria to assess its importance in causing diseases. Prepares reports on findings to be utilised for further research. Conducts post-mortem examination of dead animals to determine causes of death. May prepare serum and vaccine for prevention of various diseases. Is designated as Veterinary Bacteriologist if specialized in conducting research in viral, rickettsial and fungal disease of animals and evolving their preventive measures.

ISCO 08 Unit Group Details:

Code	2250
Title	Veterinarians

2250.0200

Veterinarian, General

Veterinarian, General Veterinary Doctor investigates and treats diseases, injuries and ailments in animals and undertakes measures to improve livestock. Examines animals for sickness, injuries and other ailments to determine course of treatment and attends to them including surgical cases where necessary. Conducts castration, artificial insemination and treatment of infertility for controlled and better breed. Inoculates domestic animals, poultry, pet animals periodically against epidemics. Investigates causes of outbreaks of infections and takes preventive measures. Advises owners of animals in correct methods of breeding, feeding, rearing and disease control. Conducts research in laboratories on such subjects as pathology, anatomy etc. Performs post-mortem of dead animals to determine causes of death. May examine

animals before and after slaughter for meat for any disease or infection. May conduct cattle and poultry shows, competition and calf rallies.

ISCO 08 Unit Group Details:

Code	2250
Title	Veterinarians

2250.0300

Veterinarian, Surgeon

Veterinary, Surgeon treats injuries and diseases of animals by surgical methods. Examines sick or injured animals to diagnose nature of injury, disability or sickness and determines course of treatment. Gives injections to animals where necessary. Operates affected part of body and prescribes necessary medicines. May take X-ray photograph of injured and affected part of body of animal. May set dislocated joints and fractured bones by applying plaster of Paris, splints of wood and bandaging them.

ISCO 08 Unit Group Details:

Code	2250
Title	Veterinarians

2250.0400

Animal Geneticist

Animal Geneticist, Animal Breeder conducts research in animal genetics and deals with problems concerning evolution of new breeds, rearing of livestock, genetically control of disease, artificial insemination, sterilization etc. Studies inherent traits in animals and analyses their causes such as environment, food, colour, growth, maturity, sterility, disease etc. Conducts experiments to develop better variety or strain of animal to resist

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

disease, increase yield of milk, meat, egg etc. Selects animals of required character to cross different breeds to get required strains by natural breeding or artificial insemination. Maintains charts and records of crossings and breeds of animals for several generations. May specialize in breeding particular strain of animals, birds, wild animals in zoo etc. is designated as Animal Gynaecologist, if specializes in genetic diseases and artificial inseminated sterility in animals.

ISCO 08 Unit Group Details:

Code	2250
Title	Veterinarians

2250.0500

Zoo Veterinarian

Zoo Veterinarian plans, directs, and participates in health care programme of veterinary clinic in zoo. Establishes and conducts effective quarantine and testing procedures for all incoming animals to ensure health of collection, prevent spread of disease, and comply with government regulations. Conducts regularly scheduled immunisation and preventive care programmes to maintain health of animals and guard against communicable diseases. Provides immediate medical attention to diseased or traumatised animals. Participates with other personnel in planning and executing nutrition and reproduction programmes for animals in zoo. Develops special programmes to encourage reproduction among animals designated as endangered species, based on knowledge of native habitat and instincts. Participates in employee training in handling and care of animals. Conducts post-mortem studies and analyses. Co-operates with zoo and aquarium personnel to exchange information concerning care of animals, to

arrange transfer, sale, or trade of animals, and to maintain nationwide inventory of animals of every species, including notation of live births. Acts as consultant to veterinarians in general practice seeking advice in treatment of exotic animals.

ISCO 08 Unit Group Details:

Code	2250
Title	Veterinarians

2250.0600

Veterinarian, Poultry

Veterinarian, Poultry advises individual poultry raisers on poultry problems: Gathers from owner information on care, condition, performance, and action of birds. Inspects flocks, pens, and housing. Diagnoses disease and prescribes treatment. Culls undesirable birds from flock. Suggests feed changes to increase egg production or growth of fowls.

ISCO 08 Unit Group Details:

Code	2250
Title	Veterinarians

2250.9900

Veterinarians, Other

Veterinarians, Other include all other veterinarians engaged in research and treatment of birds and animals, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2250
Title	Veterinarians

Group 226

Other Health Professionals

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Other Health Professionals provide health services related to dentistry, pharmacy, environmental health and hygiene, occupational health and safety, physiotherapy, nutrition, hearing, speech, vision and rehabilitation therapies. This minor group includes all human health professionals, except doctors, traditional and complementary medicine practitioners, veterinarians, nurses, midwives and paramedical professionals.

Occupations in this Group are classified into the following Families:

2261	Dentists
2262	Pharmacists
2263	Environmental and Occupational Health and Hygiene Professionals
2264	Physiotherapists
2265	Dieticians and Nutritionists
2266	Audiologists and Speech Therapists
2267	Optometrists and Ophthalmic Opticians
2269	Health Professionals, Not Elsewhere Classified

Family **2261**

Dentists

Dentists diagnose, treat and prevent diseases, injuries and abnormalities of the teeth, mouth, jaws and associated tissues by applying the principles and procedures of modern dentistry. They use a broad range of specialized diagnostic, surgical and other techniques to promote and restore oral health.

2261.0100

Dentist

Dentist, Dental Surgeon treats surgically and medically diseases and disorders of

teeth, gums and soft tissues of mouth. Examines mouth and teeth of patients by clinical tests or arranges dental X-ray or clinical and bacteriological tests through Radiologist and pathologist, if necessary for correct diagnosis. Examines results of tests and adjacent tissues for minor diseases. Cleans teeth and cavities using scalers, excavators, dental engine, etc. as necessary. Fills cavities with cement, metal or plastic and ensures proper filling by observation and easy feel in chewing by patient. Gives local or general anaesthetics as necessary and prepares mouth for operation. Extracts loose decayed or impacted teeth using surgical instruments. Renders after care. Makes and fits artificial teeth. Advises patients on various corrective dental measures and on general dental health.

ISCO 08 Unit Group Details:

Code	2261
Title	Dental Specialists

2261.0200

Oral and Maxillofacial Surgeon

Oral and Maxillofacial Surgeon performs surgery on mouth, jaws, and related head and neck structure. Executes difficult and multiple extraction of teeth. Removes tumours and other abnormal growths. Performs pre-prosthetic surgery to prepare mouth for insertion of dental prosthesis. Corrects abnormal jaw relations by mandibular or maxillary revision. Treats fractures of jaws. Administers general and local anaesthetics. May treat patients in hospital.

ISCO 08 Unit Group Details:

Code	2261
Title	Dental Specialists

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2261.0300

Orthodontist

Orthodontist examines, diagnoses, and treats abnormalities in development of jaws, position of teeth, and other dental-facial structures: Plans treatment, using cephalometric, height, and weight records, dental x rays, and front and lateral dental photographs. Designs and fabricates appliances, such as space maintainers, retainers, and labial and lingual arch wires, to alter position and relationship of teeth and jaws, and to realign teeth to produce and maintain normal function.

ISCO 08 Unit Group Details:

Code	2261
Title	Dental Specialists

2261.0400

Periodontist

Periodontist diagnoses and treats inflammatory and destructive diseases of investing and supporting tissue of teeth. Cleans and polishes teeth, eliminates irritating margins of fillings, and corrects occlusions. Performs surgical procedures to remove diseased tissue, using dental instruments. Establishes recall treatment programmes to monitor oral health practices.

ISCO 08 Unit Group Details:

Code	2261
Title	Dental Specialists

2261.0500

Prosthodontist

Prosthodontist restores and maintains oral functions. Records physiologic position of jaws to determine shape and

size of dental prostheses, using face bows, dental articulators, and other recording devices. Replaces missing teeth and associated oral structures with artificial teeth to improve chewing, speech, and appearance. Corrects natural and acquired deformation of mouth and jaws through use of prosthetic appliances.

ISCO 08 Unit Group Details:

Code	2261
Title	Dental Specialists

2261.0600

Paediatric Dentist

Paediatric Dentist provides dental care for infants, children, and adolescents. Fabricates space maintainers designed for patients. Treats primary and secondary teeth and constructs and places bridges, dentures, and obturating appliances suitable for growing arches. Manages patients with behavioural problems or handicapping conditions. Counsels and advises patients and family on growth and development of dental problems of patient. Provides preventive services through use of fluorides and sealants and instructs patient and family members on dental care.

ISCO 08 Unit Group Details:

Code	2261
Title	Dental Specialists

2261.9900

Dental Specialists, Other

Dental Specialists, Other include all other dental specialists who apply medical knowledge in the field of dentistry not elsewhere classified.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 2261
Title Dental Specialists

composition and uses of drugs to customers in order to increase sales.

Family 2262

Pharmacists

Pharmacists store, preserve, compound, and dispense medicinal products and counsel on the proper use and adverse effects of drugs and medicines following prescriptions issued by medical doctors and other health professionals. They contribute to researching, testing preparing, prescribing and monitoring medicinal therapies for optimising human health.

2262.0100

Chemist, Pharmaceuticals

Chemist, Pharmaceutical; directs and supervises manufacture of drugs and other pharmaceutical products such as tablets, syrups, ointments etc. according to prescribed formulae. Assembles various chemical ingredients in required quantities to prepare medical compounds according to prescription of Physicians, Dentists and Veterinarians, and analyses them if necessary, to ascertain their conformity to prescribed standards. Mixes ingredients according to standard formulae either manually or by mechanical devices. Conducts analysis at different stages of production and of final products to ensure that they conform to specifications. Performs experiments to formulate new pharmaceutical combinations, develops new products and studies their stability. Supervises production and carries out investigation to improve manufacturing process for syrups, drugs, antibiotics, vitamins, vaccines etc. Procures pharmaceutical products and ensures their proper storing in specified conditions. May work as Medical Representative by explaining

ISCO 08 Unit Group Details:

Code 2262
Title Pharmacists

2262.0101

Chemist, Pharmaceuticals

Chemist, Pharmaceuticals prepare directions for factory workers, supervise production process to ensure that the desired product yield is achieved. Analyse raw material samples and finished products, record planned deviations and co-ordinate with QA and QC team for reports. Provide feedback to the Production Operators and assists in developing new methods to work in a more efficient manner.

Qualification Pack Details:

QP NOS Reference LFS/Q0202
QP NOS Name Production Chemist
NSQF Level 5

ISCO 08 Unit Group Details:

Code 2262
Title Pharmacists

Family 2263

Environmental and Occupational Health and Hygiene Professionals

Environmental and Occupational Health and Hygiene Professionals assess, plan and implement programmes to recognize, monitor and control environmental factors that can potentially affect human health, to ensure safe and healthy working conditions, and to prevent disease or injury caused by chemical, physical, radiological and biological agents or ergonomic factors.

2263.0100

Health Officer

Health Officer plans, organizes and executes curative and preventive measures against epidemics and infectious disease, maintains sanitary conditions according to prescribed standards within specified area and promotes community efficiency of physical, mental and social health standards. Supervises medical facilities provided through hospitals, dispensaries, child welfare and maternity centres. Regulates, restricts and controls sale of eatables, location and working condition of cinemas, factories and other establishments affecting public health and sanitation through licenses and by prescribing health and sanitation standards. Conducts regular and periodical inspection of public eating houses, premises and public conveniences. Checks food adulteration and prosecutes offenders. Organizes anti-epidemic measures for prevention and control of outbreaks of epidemics and infectious diseases such as Cholera, smallpox, typhoid, measles, etc. and maintains vital statistics. Ensures safe water supply for drinking and other uses and disposal of refuse and excreta. Supervises and checks disposal of dead bodies by cremation or burial or grants permission for their removal outside corporation areas. Conducts publicity campaigns periodically to disseminate knowledge of health and hygiene. Organizes school health service and public health laboratories. May initiate and conduct special campaigns against mosquitoes, flies, insects, and rodents etc. to prevent spread of infectious diseases. May participate in town planning activities of local body.

ISCO 08 Unit Group Details:

Code 2263

Title Environmental and Occupational Health and Hygiene Professionals

2263.0200

Administrator, Hospital

Administrator, Hospital directs administration of hospital, nursing home, or other health care facility within authority of Governing board. Administers fiscal operations, such as budget planning, accounting, and establishing rates for health care services. Directs hiring and training of personnel. Negotiates for improvement of and additions to buildings and equipment. Directs and co-ordinates activities of medical, nursing, and administrative staff and services. Develops policies and procedures for various establishment activities. May represent establishment at community meetings and promote programmes through various news media. May develop or expand programmes or services for scientific research, preventive medicine, medical and vocational rehabilitation, and community health and welfare promotion.

ISCO 08 Unit Group Details:

Code 2263

Title Environmental and Occupational Health and Hygiene Professionals

2263.9900

Environmental and Occupational Health and Hygiene Professionals, Other

Safety, Health and Quality Inspectors, Other include associate professionals who are engaged in occupational safety, and safety of production processes, or of goods produced, used or sold, and ensure

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

compliance with health and environment protection rules and regulations, as well as with the quality standards and specifications of manufacturers not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2263
Title Environmental and Occupational Health and Hygiene Professionals

Family 2264 **Physiotherapists**

Physiotherapists assess, plan and implement rehabilitative programmes that improve or restore human motor functions, maximize movement ability, relieve pain syndromes, and treat or prevent physical challenges associated with injuries, diseases and other impairments. They apply a broad range of physical therapies and techniques such as movement, ultrasound, heating, laser and other techniques.

2264.0100 **Physiotherapist**

Physiotherapist treats patients suffering from metabolic diseases, body injuries, stiffness, paralysis, neuritis, etc. by massage, exercise and use of heat, light, water, electricity and special therapy machines and techniques. Assists and instructs patients on performance of corrective, reducing and other physical exercises.

ISCO 08 Unit Group Details:

Code 2264
Title Physiotherapists

2264.0200 **Occupational Therapist**

Occupational Therapist helps general treatment and recovery of patients suffering from tuberculosis, rheumatism, industrial accidents, blood pressure, heart trouble, etc. by engaging them as guided by doctor in creative, vocational and manual pursuits as craft work, gardening, physical exercises, games, music, etc.

ISCO 08 Unit Group Details:

Code 2264
Title Physiotherapists

2264.0300 **Chiropodist**

Chiropodist; Pedicurist treats foot disabilities and abnormalities. Removes cams, bunions, blisters, etc. using surgical instruments. May also give warm foot baths, remove hard skin from under heel and sole and give foot massage.

ISCO 08 Unit Group Details:

Code 2264
Title Physiotherapists

2264.0400 **Masseur**

Masseur; Masseuse massages by hand or machine various parts of body to remove stiffness, sprains and pains or to generally tone up muscles by improving blood circulation or stimulating nervous system.

ISCO 08 Unit Group Details:

Code 2264
Title Physiotherapists

2264.0401 **Sports Masseur**

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Sports Masseur is also known as sports therapist or massage therapist or sports massager. The responsibilities of the Sports Masseurs include manipulating muscle tissues to release tension, reduce pain, restore range of movement, ensure timely recovery and promote good body condition usually under the supervision of a medical doctor or a physiotherapist

Qualification Pack Details:

QP NOS Reference	SPF/Q1103
QP NOS Name	Sports
Masseur	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2264
Title	Physiotherapists

2264.9900

Physiotherapists and Related Associate Professionals, Other

Physiotherapists and Related Associate Professionals, Other include all other associate professionals who treat disorders of bones, muscles and parts of the circulatory or the nervous system not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2264
Title	Physiotherapists

Family 2265

Dieticians and Nutritionists

Dieticians and Nutritionists assess, plan and implement programmes to enhance the impact of food and nutrition on human health.

2265.0100

Nutritionist, General

Nutritionist, General organizes, plans and conducts programmes concerning nutrition to assist in promotion of health and control of disease. Instructs auxiliary medical personnel and allied professional workers on food values and utilisation of foods by human body. Advises health and other agencies on nutritional phases of their food programmes. Studies and analyses scientific discoveries in nutrition for adaptation and application to various food problems. Interprets and evaluates food and nutrient information designed for public use.

ISCO 08 Unit Group Details:

Code	2265
Title	Dieticians and Nutritionists

2265.0200

Dietician, General

Dietician, General plans, supervises and instructs in preparation of therapeutic or other diets for individuals or groups, in hospitals, institutions or other establishments. Determines diet values of food and food products. Plans the menu and special diets with proper nutritional value. Estimates and purchases required food, equipment and supplies. Ensures that food is properly prepared and sanitary conditions are maintained in cooking and catering places. Instructs individuals and groups in applying principles of nutrition for selection and preparation of food. May prepare educational materials on nutrition. May specialize in any particular branch of dietetics, and be designated accordingly.

ISCO 08 Unit Group Details:

Code	2265
Title	Dieticians and Nutritionists

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2265.0201

Dietician Assistant

Dietician Assistant prepares diet, diet regulations, food handling, safety and sanitary standards and certain administrative functions.

Qualification Pack Details:

QP NOS Reference	HSS/Q5201
QP NOS Name	Dietician
Assistant	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2265
Title	Dieticians and Nutritionists

2265.0300

Animal Nutritionist

Animal Nutritionist studies composition and nutritive values of animal feeds and frames balanced diets and feeding schedules for different kinds of animals. Studies habits of animals in regard to type and quantity of feed consumed to determine their effect on size, weight, and development, strength and yield of milk, meat, wool, eggs etc. Experiments nourishing of animals with different types of feeds and records improvement and growth. Prescribes correct feed such as greens, dry or preserved hay or leaves, grass, oats or mixed feed etc. for different types of animals for better yield of milk, meat etc. Develops feed mixture for commercial purposes. Classifies types of plants harmful to animals as feed. May treat sick animals by regulating and prescribing specific feed. May analyse feed samples to determine protein, carbohydrate, fat, mineral and vitamin contents and trace elements.

ISCO 08 Unit Group Details:

Code	2265
Title	Dieticians and Nutritionists

2265.9900

Dieticians and Nutritionists, Other

Dieticians and Nutritionists, Other include all other Dieticians and Nutritionists engaged in scientific research, preparation and storage of food and edibles, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2265
Title	Dieticians and Nutritionists

Family 2266

Audiologists and Speech Therapists

Audiologists and Speech Therapists evaluate, manage and treat physical disorders affecting human hearing, speech, communication and swallowing. They prescribe corrective devices or rehabilitative therapies for hearing loss, speech disorders, and related sensory and neural problems and provide counselling on hearing safety and communication performance.

2266.0100

Speech Therapist and Audiologist

Speech Therapist and Audiologist determines type and degree of hearing impairment and implements facilitation and rehabilitation services for patient. Administers and interprets variety of tests, such as air and bone conduction, and speech reception and discrimination tests, to determine type and degree of hearing impairment, site of damage, and effects on comprehension and speech. Evaluates test results in relation to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

behavioural, social, educational, and medical information obtained from patients, families, teachers, Speech Pathologists and other professionals to determine communication problems related to hearing disability. Plans and implements prevention, habilitation, or rehabilitation services, including hearing aid selection and orientation, counselling, auditory training, lip reading, language habilitation, speech conservation, and other treatment/remedial programmes designed to restore or improve communicative efficiency developed in consultation with Speech Pathologists and other professionals. Instructs speech speech-impaired persons in development of desirable speech habits by training in control of articulation and voice. Provides counselling and guidance to speech-impaired persons. Counsels patient's family concerning social and psychological problems associated with speech disabilities. May refer patient to physician or surgeon if medical treatment is determined necessary.

ISCO 08 Unit Group Details:

Code 2266

Title Audiologists and Speech Therapists

2266.0200

Speech Pathologist

Speech Pathologist specializes in diagnosis and treatment of speech and language problems, and engages in scientific study of human communication. Diagnoses and evaluates speech and language skills as related to educational, medical, social, and psychological factors. Plans, directs, or conducts rehabilitative treatment programmes to restore communicative efficiency of individuals with communication problems of organic and non-organic etiology. Provides

counselling and guidance and language development therapy to differently-abled individuals. Administers, scores, and interprets specialized hearing and speech tests. Develops and implements individualised plans for assigned clients to meet individual needs, interests, and abilities. Evaluates and monitors individuals, using audio-visual equipment, such as tape recorders, overhead projectors, filmstrips, and demonstrative materials. Reviews treatment plans, and assesses individual performance to modify, change, or write new programmes. Attends meetings and conferences and participates in other activities to promote professional growth. Instructs individuals to monitor their own speech and provides ways to practice new skills. May act as consultant to educational, medical, and other professional groups. May conduct research to develop diagnostic and remedial techniques. May teach manual sign language to student incapable of speaking. May instruct staff in use of special equipment designed to serve persons who are differently-abled.

ISCO 08 Unit Group Details:

Code 2266

Title Audiologists and Speech Therapists

2266.0300

Voice Pathologist

Voice Pathologist diagnoses and treats voice disorders, such as those associated with professional use of voice. Develops and implements perceptual evaluation procedures and psychophysical methods for voice assessment. Collects diagnostic data on individuals, such as output pressures, airflow, chest wall movements, and articular and laryngeal displacement, using scopes and other measuring

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

instruments. Analyses and interprets diagnostic data and consults with other professionals to determine method of treatment, such as surgery, vocal modification, or voice therapy. Plans and conducts voice therapy sessions, applying auditory, visual, kinematic, and biofeedback techniques.

ISCO 08 Unit Group Details:

Code 2266

Title Audiologists and Speech Therapists

2266.0401

Speech Language Pathologist and Audiologist

Speech Language Pathologist and Audiologists are professionally trained to screen, identify, assess, diagnose, refer, and provide intervention and counselling to persons with articulation, fluency, voice, language, communication, hearing, swallowing, and related disabilities. They help children and adolescents with language disorders to understand and give directions, convey ideas, and improve language skills that lead to better academic performance. They also evaluate and treat person with swallowing disorders that may result from illness, surgery, stroke, or injury.

Qualification Pack Details:

QP NOS Reference HSS/Q7601

QP NOS Name Speech Language Pathologist and Audiologist

NSQF Level 4

ISCO 08 Unit Group Details:

Code 2266

Title Audiologists and Speech Therapists

Family 2267

Optometrists and Ophthalmic Opticians

Optometrists and Ophthalmic Opticians provide diagnosis, management and treatment services for disorders of the eyes and visual system. They counsel on eye care and prescribe optical aids or other therapies for visual disturbance.

2267.9900

Optometrists and Opticians, Other

Optometrists and Opticians, Other include those who prescribe and fit glasses and contact lenses and advise on their use or the use of other visual aids, as well as on proper lighting for work and reading not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2267

Title Optometrists and Ophthalmic Opticians

Family 2269

Health Professionals, Not Elsewhere Classified

This unit group covers health professionals not classified elsewhere in sub-major group 22, Health professionals. For instance, the group includes occupations such as podiatrist, occupational therapist and other health professionals.

2269.0100

Naturopath

Naturopath Physician, Metropathy; examines patients to diagnose ailments and prescribes necessary treatment according to science of nature cure. Enquires patients about the nature and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

symptoms of ailment, previous history of their disease and keeps them under observation. Conducts routine tests to determine pulse rate, blood pressure, temperature, condition of heart, lungs, liver, etc. Diagnoses ailment and determines type of treatment to be administered such as Cosmo therapy, hydrotherapy, mud therapy etc. and advises patient for sun bathing, tub bathing, mud plastering of any part of body, massaging, regulating of diet, special physical exercises to be taken etc. as necessary for recovery.

ISCO 08 Unit Group Details:

Code 2269
Title Health Professionals Not Elsewhere Classified

2269.0200

Physician, Osteopathic

Physician, Osteopathic diagnoses and treats diseases and injuries of human body, relying upon accepted medical and surgical modalities. Examines patient to determine symptoms attributable to impairments in musculoskeletal system. Corrects disorders and afflictions of bones, muscles, nerves, and other body systems by medicinal and surgical procedures and, when deemed beneficial, manipulative therapy. Employs diagnostic images, drugs, and other aids to diagnose and treat bodily impairments. May practice medical or surgical speciality.

ISCO 08 Unit Group Details:

Code 2269
Title Health Professionals Not Elsewhere Classified

2269.0300

Physician, Siddha

Physician, Siddha examines patients by interrogation, sight, feeling pulse rate, etc. and uses panjabutha theory, 96 thathuvas, 8 kinds of tests to diagnose ailments and prescribes necessary medicines according to Siddha System of treatment. Questions patients about nature of ailment, previous history of disease, etc. Diagnoses ailments by feeling pulse, examining abdomen, colour of skin, eyes, tongue, etc., of patient. Observes urine, stool and sputum, if necessary, and applies findings for diagnosis and treatment. May use modern equipment also in diagnosing diseases. May prescribe medicines such as Legiams, Bhaspams, Kasayam, Chooranam, Senthooram eye ointment, etc. for treatment. May specialize in skin disease, eye disease, peptic ulcer (without operation) etc. May prescribe medicines for general improvement of health and prevention of diseases. May instruct patients on the use of medicines, and precautions with regard to diet to be observed and gives symptomatic treatment.

ISCO 08 Unit Group Details:

Code 2269
Title Health Professionals Not Elsewhere Classified

2269.0400

Physicians and Surgeons, Other

Health Professionals (Except Nursing), Other diagnose and treat human ailments and include physicians and surgeons not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2269
Title Health Professionals Not Elsewhere Classified

2269.0500

Orthotist and Prosthetist

Orthotist and Prosthetist provides care to patients with disabling conditions of limbs, spine or partial or total absence of limb by fitting and preparing orthopaedic braces and prosthesis, under direction of and in consultation with physician. Assists in formulation of specifications for braces and substitutive aids. Examines and evaluates patient's needs in relation to disease and functional loss. Formulates design of orthopaedic brace and prosthesis. Selects materials, making cast measurements, model modifications, and layouts. Performs fitting, including static and dynamic alignments. Evaluates brace and prosthesis on patient and makes adjustments to assure fit, function, and quality of work. Instructs patient in use of orthopaedic brace and prosthesis. Maintains patient records. May supervise other support personnel. May supervise laboratory activities relating to development of orthopaedic braces and prosthesis. May lecture and demonstrate to colleagues and other professionals concerned with orthotics and prosthetics.

ISCO 08 Unit Group Details:

Code 2269

Title Health Professionals Not Elsewhere Classified

2269.0600

Orientation and Mobility Instructor

Orientation and Mobility Instructor assists visually impaired persons to achieve personal adjustment and maximum independence through training in techniques of daily living. Interviews clients, analyses clients' lifestyle, and administers assessment tests to determine present and required or

desired orientation and mobility skills. Trains clients in awareness of physical environment through sense of smell, hearing, and touch, and to travel alone, with or without a cane, through the use of various actual or simulated travel situations and exercises. Teaches clients personal and home management skills, and communication skills, such as eating, grooming, dressing, coin and money identification, cooking, and use of telephone and bathroom facilities. Teaches clients to protect body, using hands and arms to detect obstacles. Instructs clients in arts, crafts, and recreational skills, such as leatherworking, sewing, ceramics, and playing musical instruments to improve sense of touch, co-ordination, and motor skills. Teaches clients to read and write Braille. Instructs clients in the use of reading machines and common electrical devices and in development of effective listening techniques. Instructs clients in-group activities, such as singing, playing modified sports activities to encourage and increase capacity for social participation and improve general health. Prepares progress report to allow members of rehabilitation team to evaluate clients' ability to perform varied activities essential to daily living.

ISCO 08 Unit Group Details:

Code 2269

Title Health Professionals Not Elsewhere Classified

2269.0700

Medical and Health Technicians, Other

Modern Health Associate Professionals, other include all other modern health associate professionals not elsewhere classified.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2269
Title Health Professionals Not Elsewhere Classified

234	Primary School and Early Childhood Teachers
235	Other Teaching Professionals

Sub Division 23 Teaching Professionals

Teaching Professionals teach the theory and practice of one or more disciplines at different educational levels, conduct research and improve or develop concepts, theories and operational methods pertaining to their particular discipline, and prepare scholarly papers and books.

Tasks performed by workers in this sub-major group usually include: conducting classes, courses, or tutorials at a particular educational level, for educational and vocational purposes, including private lessons; conducting adult literacy programmes; teaching and educating persons learning difficulties or special needs. Designing and modifying curricula; inspecting and advising on teaching methods and aids; participating in decisions concerning the organization of teaching and related activities at schools and universities; conducting research in particular subjects to improve or develop concepts, theories or operational methods for application in industrial and other fields. Preparing scholarly papers and books. Supervising other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

231	University and Higher Education Teachers
232	Vocational Education Teachers
233	Secondary Education Teachers

Group 231 University and Higher Education Teachers

University and Higher Education Teachers prepare and deliver lectures and conduct tutorials in one or more subjects within a prescribed course of study at a university or other higher educational institution. They conduct research, and prepare scholarly papers and books.

Occupations in this Group are classified into the following Families:

2310	University and Higher Education Teachers
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Family 2310 University and Higher Education Teachers

University and Higher Education Teachers prepare and deliver lectures and conduct tutorials in one or more subjects within a prescribed course of study at a university or other higher educational institution. They conduct research, and prepare scholarly papers and books.

2310.0100 University and College Teacher, Arts Subjects/Professors/Assistant Professors, Arts Subjects

University and College Teacher, Arts Subjects teaches university students one or more arts subjects such as history, geography, anthropology, sociology,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

philosophy, psychology, economics, politics, Indian or Foreign language such as Hindi, Sanskrit, English, French etc. Deliver lectures and conducts seminars. Sets examination papers, conducts examination and evaluates answer books. May conduct research and guide research workers. Is designated as LECTURER, READER, PROFESSOR in subject concerned, according to level of responsibility held. May be designated as DEAN OF FACULTY, if responsible for controlling and supervising teaching activities and management of institution.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.0200

University and College Teacher, Commerce Subjects/Professors/Assistant Professors, Commerce Subjects

University and College Teacher, Commerce Subjects teaches university students one or more commerce subjects such as banking, accountancy, auditing, etc. Delivers lectures, sets examination papers, conducts examinations and marks papers. Is designated as LECTURER, READER, PROFESSOR, etc. in subject concerned, according to level of responsibility held. Is designated as DEAN OF FACULTY, if responsible for controlling and supervising teaching activities and management of institution.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.0300

University and College Teacher, Management Subjects/Professors/Assistant Professors, Management Subjects

University and College Teacher, Management Subjects teaches one or more management subjects, within prescribed curriculum. Prepares and delivers lectures to students, compiles bibliographies of specialized materials for outside reading assignments. Stimulates group discussions and assigns projects to students. Compiles, administers, and grades examinations, or assigns this work to others. Directs research of other teachers or graduate students working for advanced academic degrees. Conducts research in particular field of knowledge and publishes findings in professional journals. Performs related duties, such as advising students on academic and vocational curricula, and acting as adviser to student organizations. Serves in the faculty committee providing professional consulting services to government and industry. May be designated according to faculty rank such as LECTURER, READER, PROFESSOR, etc.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.0400

University and College Teacher, Law/Professors/Assistant Professors, Education

University and College Teacher, Education teaches sponsored Teachers and university students one or more subjects in education such as methods of teaching,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

educational psychology etc. Arranges for teaching practice classes and accompanies students to supervise and guide them. Conducts seminars and holds tutorial classes. May conduct research and guide research workers. May be designated as LECTURER, READER, PROFESSOR, etc. according to level of responsibility held. Is designated as DEAN OF FACULTY if responsible for controlling and supervising and teaching activities and management of institution.

ISCO 08 Unit Group Details:

Code 2310
Title University and Higher Education Teachers

2310.0500

University and College Teacher, Law/Professors/Assistant Professors, Law

University and College Teacher, Law teaches university students one or more subjects relating to principles and practice of law. Delivers lectures, sets examination papers, conducts examinations and marks papers. May conduct or guide research work. Is designated as LECTURER, READER, PROFESSOR, etc. in subject concerned, according to level of responsibility held. Is designated as DEAN OF FACULTY, if responsible for controlling and supervising teaching activities and management of the institution.

ISCO 08 Unit Group Details:

Code 2310
Title University and Higher Education Teachers

2310.0600

University and College Teacher, Science

Subjects/Professors/Assistant Professors, Science Subjects

University and College Teacher, Science Subjects teaches university students one or more science subjects such as chemistry, physics, botany, zoology, mathematics, statistics, geology etc. Delivers lectures, guides and supervises practical work in field or laboratory, sets examination papers, conducts examinations and marks papers. May conduct or guide research work. Is designated as DEMONSTRATOR, LECTURER, READER, PROFESSOR, etc. in subject concerned, according to level of responsibility held. Is designated as DEAN OF FACULTY, if responsible for controlling and supervising teaching activities and management of institution (Excluded are university teachers in engineering, medicine and surgery, agriculture and veterinary science subjects).

ISCO 08 Unit Group Details:

Code 2310
Title University and Higher Education Teachers

2310.0700

University and College Teacher, Engineering/Professors/Assistant Professors, Engineering

University and College Teacher, Engineering teaches university students one or more subjects relating to architecture, civil engineering, mechanical engineering, electrical engineering, telecommunication engineering, chemical engineering, metallurgy, mining, surveying, fuel technology, soap technology, textile technology or other branches of engineering, and technology. Delivers lectures, guides and supervises practical work in field or laboratory. Sets

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

examination papers, conducts examination and marks papers. May conduct or guide research work. Is designated as Lecturer; Reader; Professor; etc. in the subject concerned, according to the level of responsibility held. Is designated as Dean of Faculty if responsible for controlling and supervising activities and management of institution.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.0800

University and College Teacher, Information

Technology/Professors/Assistant Professors, Information Technology

University and College Teacher, Information Technology teaches one or more Information Technology subjects, within prescribed curriculum. Prepares and delivers lectures to students, compiles bibliographies of specialized materials for outside reading assignments. Assists students in software development projects and finding solutions to software/hardware related problems. Stimulates group discussions and assigns projects to students. Compiles, administers, and grades examinations, or assigns this work to others. Directs research of other teachers or graduate students working for advanced academic degrees. Conducts research in particular field of knowledge and publishes findings in professional journals. Performs related duties, such as advising students on academic and vocational curricula, and acting as adviser to student organizations. Serves on faculty committee providing professional consulting services to

government and industry. May be designated according to faculty rank such as LECTURER, READER, PROFESSOR, etc.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.0900

University and College Teacher, Medicine and Surgery/Professors/Assistant Professors, Medicine and Surgery

University and College Teacher, Medicine and Surgery teaches university students one or more subjects relating to medicine and surgery, including dental science, according to any medical system such as Allopathy, Ayurveda, Homoeopathy or Unani. Delivers lectures, guides and supervises students in diagnosis of ailments and in practical work in ward, operation theatre, labour room and laboratory. Sets examination papers, conducts examinations and marks papers. May conduct or guide research work. Is designated as Lecturer, Reader, Professor, etc. in subjects concerned, according to level of responsibility held. Is designated as Dean of Faculty if controlling; activities and management of institution.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.1000

University and College Teacher, Veterinary Science/Professors/Assistant Professors, Veterinary Science

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

University and College Teacher, Veterinary Science teaches university students one or more subjects relating to veterinary science. Delivers lectures, guides and supervises students in diagnosis and treatment of diseases and in laboratory work. Sets examination papers, conducts examination and marks papers. May conduct or guide research work. Is designated as Lecturer, Reader, Professor, etc. in subject concerned, according to level of responsibility held. Is designated as Dean of Faculty if responsible for controlling and supervising teaching activities and management of institution.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.1100

University and College Teacher, Agricultural Subjects

University and College Teacher, Agricultural Subjects teaches university students one or more subjects relating to agronomy, horticulture, silviculture or other branches of agriculture. Delivers lectures, guides and supervises practical work in field or laboratory, sets examination papers. Conducts examination and marks papers. May conduct or guide research work. Is designated as Lecturer; Reader, Professor; etc. in the subject concerned according to the level of responsibility held. Is designated as Dean of Faculty if responsible for controlling and supervising teaching activities and management of the institution.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.1200

University and College Teacher, Fine Arts/Professors/Assistant Professors, Fine Arts

University and College Teacher, Fine Arts teaches university students principles and practice of one or more fine arts such as dance, music, painting, etc. Delivers lectures, gives practical demonstrations and guides and supervises practical work. Sets examination papers, conducts examinations and marks papers. Is designated as Lecturer; Reader; Professor; etc. in subjects concerned, according to level of responsibility held. Is designated as Dean of Faculty if responsible for controlling and supervising teaching activities and management of institution.

ISCO 08 Unit Group Details:

Code 2310

Title University and Higher Education Teachers

2310.9900

Professors/Assistant Professors, Other

University and College Teachers, Other teach university students one or more subjects and include those teaching subjects such as library science, journalism, public administration, military science, home science,, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2310

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title University and Higher Education Teachers

Group 232 Vocational Education Teachers

Vocational Education Teachers teach or instruct vocational or occupational subjects in adult and further education institutions and to senior students in secondary schools and colleges. They prepare students for employment in specific occupations or occupational areas for which university or higher education is not normally required.

Occupations in this Group are classified into the following Families:

2320 Vocational Education Teachers

Family 2320 Vocational Education Teachers

Vocational Education Teachers teach or instruct vocational or occupational subjects in adult and further education institutions and to senior students in secondary schools and colleges. They prepare students for employment in specific occupations or occupational areas for which university or higher education is not normally required.

2320.0101 Certified Training Assessor

Certified Training Assessor (CTA) would be required to assess the standard of training of trainees within the scope of a certified syllabus and courseware. They should be able to assess trainees objectively on theory and practical aspects. An assessor should have requisite aptitude for training and teaching, backed by adequate subject

matter expertise and clarity regarding the documentation required. A CTA should be familiar with the syllabus, courseware, methods, assessment processes and documentation for structured training in the PSS.

Qualification Pack Details:

QP NOS Reference	SKS/Q0901
QP NOS Name	Certified Training Assessor
NSQF Level	6

ISCO 08 Unit Group Details:

Code	2320
Title	Vocational Education Teachers

2320.0102

Physical Security Trainer

Physical Security Trainer (PST) would be required to train a batch of trainees within a stipulated period of time and according to a certified syllabus. They should be able to impart knowledge, refine understanding of the subject and hone skills of the pupils. A PST should have requisite aptitude for training and teaching, backed by adequate knowledge and experience in safe, proficient handling and use of licensed firearms. Trainer should be able to teach and train new trainees as well as those already working in the PSS without receiving formal training

Qualification Pack Details:

QP NOS Reference	SKS/Q0801
QP NOS Name	Physical Security Trainer
NSQF Level	6

ISCO 08 Unit Group Details:

Code	2320
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Vocational Education Teachers for teaching history, geography, civics, social science, economics, psychology, etc.

Group 233 Secondary Education Teachers

Secondary Education Teachers teach one or more subjects at secondary education level, excluding subjects intended to prepare students for employment in specific occupational areas.

Occupations in this Group are classified into the following Families:

2330 Secondary Education Teachers

Family 2330 Secondary Education Teachers

Secondary Education Teachers teach one or more subjects at secondary education level, excluding subjects intended to prepare students for employment in specific occupational areas.

2330.0100

Senior Secondary and Secondary School Teacher, Arts

Senior Secondary and Secondary School Teacher, Arts teaches one or more subjects to students of high school, higher secondary school, multipurpose school in regional language or English. Teaches students of various standards, allots and corrects home work. Conducts tests; and examinations and decides eligibility for promotion to higher standards. Maintains school registers and records. May collect fees, conduct sports and extracurricular activities such as scouting, hobby clubs, dramatics. May be in charge of stores and equipment, hostel, transport, canteen, library, etc. Is designated as Arts Teacher

for teaching history, geography, civics, social science, economics, psychology, etc.

ISCO 08 Unit Group Details:

Code 2330
Title Senior Secondary and Secondary School Teaching Professionals

2330.0200

Senior Secondary and Secondary School Teacher, Science

Senior Secondary and Secondary School Teacher, Science teaches one or more subjects to students of high school, higher secondary school, multipurpose school in regional language or English. Teaches students of various standards, allots and corrects homework, gives practical instructions in science subjects in laboratory. Conducts tests; and examinations and decides eligibility for promotion to higher standards. Maintains school registers and records, may collect fees; conduct sports and extracurricular activities such as scouting, hobby clubs, dramatics. May be in charge of stores and equipment, hostel, transport, canteen, library, etc. Is designated as Science Teacher for teaching science subjects such as chemistry, physics, biology, mathematics, statistics etc.

ISCO 08 Unit Group Details:

Code 2330
Title Senior Secondary and Secondary
School Teaching Professionals

2330-0300

Senior Secondary and Secondary School Teacher, Commerce

Senior Secondary and Secondary School Teacher. Commerce teaches one or more

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

subjects of commerce such as banking, accountancy, auditing etc. to students of high school, higher secondary school, multipurpose school in regional language or English. Teaches students of various standards, allots and corrects home work. Conducts tests; and examinations and decides eligibility for promotion to higher standards. Maintains school registers and records. May collect fees; conduct sports and extracurricular activities such as scouting, hobby clubs, and dramatics. May be in charge of stores and equipment, hostel, transport, canteen, library, etc.

ISCO 08 Unit Group Details:

Code 2330
Title Senior Secondary and Secondary School Teaching Professionals

2330.0400

Language Teacher, Senior Secondary and Secondary School

Language Teacher, Senior Secondary and Secondary School teaches one or more Indian or foreign languages in high school, higher secondary school or multipurpose school. Teaches spellings, pronunciation and grammar of language, gives exercises in speaking and writing language. Conducts tests and examinations and decides eligibility for promotion to higher standards.

ISCO 08 Unit Group Details:

Code 2330
Title Senior Secondary and Secondary School Teaching Professionals

2330.9900

Senior Secondary and Secondary School Teachers, other

Senior Secondary and Secondary School Teachers, Other include all other teachers engaged in teaching students of high and higher secondary schools, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2330
Title Senior Secondary and Secondary School Teaching Professionals

Group 234

Primary School and Early Childhood Teachers

Primary School and Early Childhood Teachers teach a range of subjects at the primary level of education and organize educational activities for children below primary school age.

Occupations in this Group are classified into the following Families:

2341 Primary School Teachers
2342 Early Childhood Educators

Family 2341

Primary School Teachers

Primary School Teachers teach a range of subjects at the primary education level.

2341.0100

Middle School Teacher

Middle School Teacher teaches one or more subjects to students of middle school in regional language or English. Teaches students of various standards, allots and corrects homework, conducts test and examinations and decides eligibility for promotion to higher standards, Maintains school registers and records. May collect fees, conduct sports and extra-curricular activities and be in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

charge of library, canteen, dramatics, etc. Is designated as Senior Basic Teacher if teaching according to basic educational systems.

ISCO 08 Unit Group Details:

Code 2341
Title Primary School Teachers

2341.0200

Language Teacher, Middle School

Language Teacher, Middle School teaches one or more Indian or foreign languages to students of middle schools. Teaches spellings, pronunciation and grammar of language, gives exercises in speaking and writing language, conducts tests and examinations and decides eligibility for promotion to higher standards.

ISCO 08 Unit Group Details:

Code 2341
Title Primary School Teachers

2341.0400

Primary School Teacher

Primary School Teacher teaches students of primary or elementary school in all subjects, such as reading, writing, arithmetic, language, social science, moral science, history and geography. Teaches all specified subjects according to prescribed time schedule, allots and corrects homework. Conducts tests and examinations and prepares examination results. Maintains school registers and record of attendance, collects fees and submits accounts to office. May conduct extracurricular activities such as hobbies, sports, dramatics, etc.

ISCO 08 Unit Group Details:

Code 2341

Title Primary School Teachers

2341.9900

Primary School Teachers, Other

Primary School Teachers, Other include all other teachers engaged in teaching students of primary school not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2341
Title Primary School Teachers

Family 2342

Early Childhood Educators

Early Childhood Educators promote the social, physical, and intellectual development of children below primary school age through the provision of educational and play activities.

2342.0100

Teacher, Infant School/Teacher Pre-Primary

Teacher, Infant School teaches children of nursery and kindergarten classes. Teaches through Montessori, happy education or other system of child education, reading and writing of alphabets, numerals and simple sentences, simple additions and subtractions, familiarises them with names, colours, shapes, sounds, etc., of objects, flowers, birds and animals. Directs recreational activities and generally guides development of physical and mental activities of children. May look after and store teaching equipment, receive fees and maintain accounts, arrange for children's mid-day meals and attend to other extra-curricular or special activities, such as sports, dramatics, picnics and excursions, music, hand work,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

etc. Is designated as Nursery Teacher or Kindergarten Teacher according to the school or standard in which teaching.

ISCO 08 Unit Group Details:

Code 2342
Title Early Childhood Educators

2342.9900

Pre-Primary Education Teaching Associate Professionals, Other

Pre-Primary Education Teaching Associate Professionals, Other include those who organize group and individual play and educational activities to support and promote physical, mental and social development of children below primary school age not classified elsewhere.

ISCO 08 Unit Group Details:

Code 2342
Title Early Childhood Educators

Group 235

Other Teaching Professionals

Other Teaching Professionals conduct research and advise on teaching methods, teach people with learning difficulties or special needs; teach non-native languages for migration and related purposes; give private tuition; teach arts, Information Technology and other subjects outside the mainstream primary, secondary and higher education systems and provide other teaching services not classified elsewhere in Sub-major group 23, Teaching professionals.

Occupations in this Group are classified into the following Families:

2351 Education Method Specialists

2352 Special Needs Teachers

2353 Other Language Professionals
2354 Other Music Teachers
2355 Other Arts Teachers
2356 Information Technology Trainers
2359 Teaching Professionals, Not Elsewhere Classified

Family 2351

Education Method Specialists

Education Method Specialists conduct research and develop or advise on teaching methods, courses and aids. They review and examine teachers' work, the functioning of educational institutions and the results achieved and recommend changes and improvement.

2351.0100

School Inspector

School Inspector performs variety of supervisory and executive tasks in any branch of public or private schools and ensures satisfactory working on procedural matters, records and registers to be maintained, policy decisions, connected rules and regulation, etc. and guides teachers and staff as necessary. Visits schools, checks records and connected papers; examines working conditions. Confers with the teaching staff on questions relating to curricula, teaching methods, equipment and other matters. Visits classrooms to observe teaching techniques and to evaluate teachers' performance, and scholastic results obtained. Prepares reports and makes recommendations to educational authorities concerning possible changes and improvement in curricula, teaching methods, and other matters. CIRCLE INSPECTOR SCHOOLS DISTRICT INSPECTOR OF SCHOOLS.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	2351
Title	Education Method Specialists

2351.9900

Education Methods Specialists, Other

Education Method Specialists, Other include all other specialists in education methods, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2351
Title	Education Method Specialists

Family 2352

Special Needs Teachers

Special Needs Teachers teach children who are differently-abled (mentally or physically), young persons or adults or those with learning difficulties or other special needs. They promote the social, emotional, intellectual and physical development of their students.

2352.0100

Teacher for Visually Impaired

Teacher for Visually Impaired teaches elementary middle and secondary school subjects to pupils with visual impairment using Braille system. Instructs students in reading and writing braille, using slate and stylus or braillewriter. Adapts school curriculum to meet needs of pupils, teaching subjects such as mental arithmetic and music listening. Trains pupils to recognise objects and perform useful duties by developing their sense of touch. May teach Braille to persons with

sight and be designated as Instructor, Braille.

ISCO 08 Unit Group Details:

Code	2352
Title	Special Needs Teachers

2352.0200

Teacher for Hearing-Impaired

Teacher for Hearing-Impaired teaches elementary middle and secondary school subjects to pupils with hearing impairment using special skills such as lip reading and teaches special skills. Instruct pupils in formation and development of sounds for speech, using high-powered hearing aid or electrical amplifying equipment. Teach students to read lips, pointing out characteristic formation of lips and facial expressions. Teaches music appreciation and speech rhythm through sense vibration. Instruct pupils in elementary and secondary subjects adapting curriculum to meet their needs. May specialize in teaching lip reading and be designated as Teacher, Lip Reading.

ISCO 08 Unit Group Details:

Code	2352
Title	Special Needs Teachers

2352.0300

Teacher for Differently-Abled (Mental)

Teacher for Differently-Abled (Mental) teaches basic academic subjects in schools, centres and institutions to children who are differently-abled (mentally). Plans courses of study according to pupils' levels of learning. Conducts activities in subjects, such as music, art, crafts and physical education to stimulate and develop interest,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

abilities, manual skills and co-ordination. Administers mental ability and achievement tests and interprets results. Devises instructional methods and aids, such as audio-visual techniques and materials to meet needs of pupils. Prepares reports and make special studies on pupil behaviour.

ISCO 08 Unit Group Details:

Code 2352
Title Special Needs Teachers

2352.0400 Teacher for Differently-Abled (Physical)

Teacher for Differently-Abled (Physical) teaches differently-abled pupils in elementary, middle and secondary grades, evaluating pupils' abilities in order to determine training programmes that will result in maximum progress. Observes pupils to determine physical limitations and plans academic and recreational programmes to meet individual needs. Devises instructional materials methods and aids to assist in rehabilitation process. Plans and organizes extra-curricular programmes. May teach pupils in hospitals.

ISCO 08 Unit Group Details:

Code 2352
Title Special Needs Teachers

2352.9900 Teacher for Differently-Abled, Other

Teacher for Differently-Abled, Other includes all other teachers engaged in teaching students who are differently-abled (mentally and/or physically), not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2352
Title Special Needs Teachers

Family 2353 Other Language Teachers

Other Language Teachers teach non-native languages to adults and children who are learning a language for reasons of migration, to fulfil employment requirements or opportunities, to facilitate participation in educational programmes delivered in a foreign language, or for personal enrichment. They work outside the mainstream primary, secondary and higher education systems, or in support of students and teachers within those systems.

Family 2354 Other Music Teachers

Other Music Teachers teach students in the practice, theory and performance of music outside the mainstream primary, secondary and higher education systems, but may provide private or small group tuition as an extracurricular activity in association with mainstream educational institutions.

Family 2355 Other Arts Teachers

Other Arts Teachers teach students in the practice, theory and performance of dance, drama, visual and other arts (excluding music) outside the mainstream primary, secondary and higher education systems, but may provide private or small group tuition as an extracurricular activity in association with mainstream educational institutions.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2355.0100 Art Teacher

Art Teacher Drawing Teacher instructs school students in art subjects such as drawing and painting. Demonstrates to pupils' methods and techniques of using drawing material such as brushes, scale, pencils and colours. Instructs them in model drawing in pencil and crayons and painting of objects, landscapes, plant life, murals, etc. Observes their work and makes corrections. May organize art exhibitions and visits to museums art galleries and places of artistic interest.

ISCO 08 Unit Group Details:

Code	2355
Title	Other Arts Teacher

2355.9900

Arts Teacher, Other

Arts Teacher, Other include all other teachers engaged in teaching of specialized subjects like music, commercial practice, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2355
Title	Other Arts Teacher

Family 2356 Information Technology Trainers

Information Technology Trainers develop, schedule and conduct training programmes and courses for computer and other information technology users outside the mainstream primary, secondary and higher education systems.

2356.0100

Manual Training Teacher/Craft Instructor

Manual Training Teacher; Craft Instructor gives instructions to students in schools and training institutions in manual crafts such as carpentry, tailoring, weaving, book binding, blacksmithy etc. Imparts theoretical instructions for the use of tools, mechanical drawings, blueprint reading and related subjects. Gives demonstrations of process and operations in the workshop; supervises and guides students in their practical work. Looks after stores, equipment and tools.

ISCO 08 Unit Group Details:

Code	2356
Title	Information Technology Trainers

2356.0301

Master Trainer for Junior Software Developer

Master Trainer for Junior Software Developer will be accountable to train and equip students of 0 to 2 years' experience. Major responsibility being to prepare trainees and enable them to procure, and perform to a reasonable extent, at entry level jobs that exist in the IT Services Industry.

Qualification Pack Details:

QP NOS Reference	SSC/Q0509
QP NOS Name	Master Trainer for Junior Software Developer
NSQF Level	6

ISCO 08 Unit Group Details:

Code	2356
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Information Technology Trainers

decorative pieces. May also instruct in drawing and in art subjects.

2356.9900

Information Technology Trainers, Other

Information Technology Trainers, Other include those who engage in other teaching activities than those connected with primary, pre-primary and special education school levels not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2356

Title Information Technology Trainers

Family 2359

Teaching Professionals, Not Elsewhere Classified

This unit group covers Teaching Professionals not classified elsewhere. For instance, the group includes those who provide private tuition in subjects other than foreign languages and the arts, and those who provide educational counselling to students.

2359.0100

Handwork Teacher/Teacher, Art and Craft

Handwork Teacher; Handicraft Teacher imparts training to school students in handwork and handicraft. Teaches and develops, in students, sense of colour combinations, forms and shapes and three-dimension visualisation. Instructs in handicrafts such as modelling, fret work, clay work, cutting forms and shapes in card boards, paper and plywood toy making, designing simple artistic and

ISCO 08 Unit Group Details:

Code 2359

Title Teaching Professionals Not Elsewhere Classified

Sub Division 24

Business and Administrative Professionals

Business and Administration Professionals perform analytical, conceptual and practical tasks to provide services in financial matters, human resource development, public relations and marketing, sales in the technical, medical, information and communication technology areas and conduct, reviews of organizational structures, methods and systems as well as quantitative analyses of information affecting investment programmes.

Tasks performed by workers in this sub-major group usually include, collecting, analysing and interpreting information on the financial viability, cost structures and trading effectiveness of organizations; conducting audits, preparing financial statements and controlling treasury systems for organizations; developing and reviewing financial plans and strategies, executing buy and sell orders, and negotiating the purchase and sale of commodities; developing, implementing and evaluating staff recruitment, training and development programmes; researching, developing and implementing marketing and public relations campaigns; studying and developing methods and policies to improve and promote government and business operations and effectiveness; acquiring and updating knowledge of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

employers' and competitors' goods and services, and market conditions; assessing customers' needs and explaining and demonstrating goods and services to them.

Occupations in this Sub Division are classified into the following Groups:

241	Finance Professionals
242	Administration Professionals
243	Sales, Marketing and Public Relations Professionals

Group 241 Finance Professionals

Finance Professionals plan, develop, organize, administer, invest, manage and conduct quantitative analyses of either financial accounting systems or funds for individuals, establishments and public or private institutions.

Occupations in this Group are classified into the following Families:

2411	Accountants
2412	Financial and Investment Advisors
2413	Financial Analysts

Family 2411 Accountants

Accountants plan, organize and administer accounting systems for individuals and establishments. Some occupations classified here examine and analyse the accounting and financial records of individuals and establishments to ensure accuracy and compliance with established accounting standards and procedures.

2411.0100 Accountant

Accountant ensures proper maintenance of account books and records of business and financial establishments, private institutions, Government or Quasi Government Offices. Supervise subordinates e.g. Accounts Clerk engaged in maintenance of accounts and records. Scrutinises bills, receipts, payments, etc. for proper entries in Cash Book, Journal, Ledger and other records. Keeps record of all taxes, licenses, fees etc. required to be paid by organizations or establishment in which engaged and ensures that they are paid in time and kept up-to-date. Gets annual budget (or Budget for prescribed period) prepared and consolidated under their supervision and places it before 'Board' or appropriate authority for consideration. Prepares final accounts such as trial balance, profit annual loss statement and balance sheet etc. as required depending upon type of industry or organization in which engaged. Sees that prescribed account procedure is followed by Offices, establishments and institutions and account books are properly maintained. Checks inventory, counts cash, examines documents in support of entries and reports to appropriate authorities in maintenance of accounts or loss of money, material etc. Ensures that instructions given or objections raised are carried out or rectified. Makes periodical and surprise checks of accounts. Advises appropriate authority on financial matters including revenue and expenditure, such as procedure for procurement of raw materials, machinery and other purchases and also disposal of assets, write off, depreciation award of contract etc. May specialize in particular branches of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

accountancy and be designated as Chartered Accountant; Tax Accountant etc. May prepare tax returns and financial statements. May also perform secretarial work, such as transfer of shares, registration etc.

ISCO 08 Unit Group Details:

Code	2411
Title	Accountants

2411.0101 Associate-Transactional Finance and Accounting

Associate-Transactional, Finance and Accounting is responsible for financial activities that are largely simple and transactional in nature. They are responsible for systematic and timely recording, reporting, and analysis of financial transactions of a business.

Qualification Pack Details:

QP NOS Reference	SSC/Q2301
QP NOS Name	Associate- Transactional Finance and Accounting
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2411
Title	Accountants

2411.0200 Auditor

Auditor examines accounts books and records of business establishments, private institutions, Government or Quasi Government offices for accuracy and completeness of book keeping records and financial statements. Checks items of entries in day book or journal for correct

recording. Scrutinises bills, vouchers and relevant entries in cashbooks. Verifies ledger entries against receipts for cash payment. Checks Arithmetic total for accuracy and counts cash in hand if required. Conducts test checks for proper observance of accounts procedure and ensures that all revenue and expenditure are brought to account under proper heads and that expenditure and disbursements are properly authorised, vouched and correctly classified. Acts as liquidator or arbitrator when required. Represents employees before tribunals, courts, etc. to clarify points regarding financial matters of companies and certifies financial statements as and when required by court of law or other authorities. Advises new or prospective firms in matters of account rules, taxation and procedure to be followed. Reports to appropriate authority irregularities in accounts and cases of losses of money, improper expenditure etc. May prepare financial statement and final accounts, such as profit and loss statements, balance sheets, etc. for private and public undertakings.

ISCO 08 Unit Group Details:

Code	2411
Title	Accountants

2411.0201 Associate-Finance and Accounting Complex

Associate-Finance and Accounting Complex is responsible for as collection, analysis, summarisation and presentation of the financial performance of a business. These individuals are also responsible for maintaining and analysing financial information for ongoing reporting and also supporting fiscal year planning and budgeting.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	SSC/Q2302
QP NOS Name	Associate-Finance and Accounting Complex
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2411
Title	Accountants

2411.0300

Cost Accountant

Cost Accountant devises and controls system of determining unit cost of products or services and calculates actual or average cost per unit considering various factors such as cost of raw materials, depreciation of machinery, payment of wages, rent and interest and other overhead expenses etc. Analyses cost records such as raw materials purchased, wages and salaries paid, depreciation of machinery and overhead charges to ascertain distribution of cost of various divisions of management and production. Determines performance of each unit by computing machine hour rate, labour hour rate etc. to calculate output. Devises methods for finding out sources of wastage of material and unremunerative labour and suggests measure for eliminating or reducing wastage. Spots out financial weakness in methods of production and suggests measures for improvement. Assists management in setting standards for future cost and budgets for controlling expenses, deciding price structure, new investment, automation-making policy, etc. and also in deciding quantum of work to be assigned to employees. Ascertains proper bases for distribution of cost of various divisions of management.

Classifies overhead charges into fixed and variable, controllable and uncontrollable etc. and suggests measures for their reduction or elimination. May work independently or supervise work of junior Cost Accountants and Cost Clerks performing routine phases of operations. May devise suitable form for determining quantum of work to be performed by each unit. May prepare statistical statement of costs and production. May specialize in Management Accounting.

ISCO 08 Unit Group Details:

Code	2411
Title	Accountants

Family 2412

Financial and Investment Advisors

Financial and Investment Advisers develop financial plans for individuals and organizations, and invest and manage funds on their behalf.

2412.0100

Financial Examiner

Financial Examiner enforces or ensures compliance with laws and regulations governing financial and securities institutions and financial and real estate transactions. May examine, verify correctness of, or establish authenticity of records. Direct and participate in formal and informal meetings with bank directors, trustees, senior management, counsels, outside accountants and consultants in order to gather information and discuss findings. Investigate activities of institutions in order to enforce laws and regulations and to ensure legality of transactions and operations or financial solvency. Prepare reports, exhibits and other supporting schedules that detail an

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

institution's safety and soundness, compliance with laws and regulations, and recommended solutions to questionable financial conditions. Recommend actions to ensure compliance with laws and regulations, or to protect solvency of institutions. Resolve problems concerning the overall financial integrity of banking institutions including loan investment portfolios, capital, earnings, and specific or large troubled accounts. Review audit reports of internal and external auditors in order to monitor adequacy of scope of reports or to discover specific weaknesses in internal routines. Review balance sheets, operating income and expense accounts, and loan documentation in order to confirm institution assets and liabilities. Verify and inspect cash reserves, assigned collateral, and bank-owned securities in order to check internal control procedures. Confer with officials of real estate, securities, or financial institution industries in order to exchange views and discuss issues or pending cases. Establish guidelines for procedures and policies that comply with new and revised regulations, and direct their implementation.

ISCO 08 Unit Group Details:

Code	2412
Title	Financial and Investment Advisors

2412.0200

Financial Analyst

Financial Analyst conducts quantitative analysis of information affecting investment programmes of public or private institutions. Analyses financial information to produce forecasts of business, industry, and economic conditions for use in making investment decisions. Assemble spreadsheets and

draw charts and graphs used to illustrate technical reports, using a computer. Evaluates and compares the relative quality of various securities in a given industry. Interprets data affecting investment programmes, such as price, yield, stability, future trends in investment risks, and economic influences. Maintains knowledge and stays abreast of developments in the fields of industrial technology, business, finance, and economic theory. Monitor fundamental economic, industrial, and corporate developments through the analysis of information obtained from financial publications and services, investment banking firms, government agencies, trade publications, company sources, and personal interviews. Prepare plans of action for investment based on financial analyses. Present oral and written reports on general economic trends, individual corporations, and entire industries. Recommends investments and investment timing to companies, investment firm staff, or the investing public. Collaborates with investment bankers to attract new corporate clients to securities firms.

ISCO 08 Unit Group Details:

Code	2412
Title	Financial and Investment Advisors

2412.0300

Budget Analyst

Budget Analyst examines budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyses budgeting and accounting reports for the purpose of maintaining expenditure controls. Analyses monthly department budgeting and accounting reports to maintain expenditure controls. Compiles and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

analyses accounting records and other data to determine the financial resources required to implement a programme. Directs the preparation of regular and special budget reports. Interprets budget directives and establishes policies for carrying out directives. Performs cost-benefits analyses to compare operating programmes, reviews financial requests, and explores alternative financing methods. Reviews operating budgets to analyse trends affecting budget needs. Summarises budgets and submits recommendations for the approval or disapproval of funds requests. Consults with managers to ensure that budget adjustments are made in accordance with programme changes. Matches appropriations for specific programmes with appropriations for broader programmes, including items for emergency funds.

ISCO 08 Unit Group Details:

Code 2412
Title Financial and Investment Advisors

2412.0400

Risk Management Analyst

Risk Management Analyst (Credit Card Portfolio) researches ideas, formulates business intelligence, implement and quantifies the benefits. Makes recommendations to management in acquisition of new card members; manages existing portfolio and operational effectiveness. Responsible to develop scores to be applied to each stage within the lifecycle of the customer. Conducts research and analysis on the emerging trends and innovation in the industry to ensure competitiveness in the market place. The role includes coordination of several groups within the

organization to brainstorm ideas, assess benefits, prioritise and manage the development from concept to implementation.

ISCO 08 Unit Group Details:

Code 2412
Title Financial and Investment Advisors

2412.0501

Agriculture Field Officer

Agriculture Field Officer involves in promoting loans and other credit services to the farmers. The person is responsible for promoting the loan products of the financial institution to prospective farmers, visit their areas to pre assess their credibility and reliability, analyse on all possible ways about the borrower to ensure that their details are eligible to sanction the loan, disburse the amount and finally supervise and follow up for recovery of the loan amount.

Qualification Pack Details:

QP NOS Reference AGR/Q7701
QP NOS Name Agriculture Field Officer
NSQF Level 4

ISCO 08 Unit Group Details:

Code 2412
Title Financial and Investment Advisors

2412.0600

Commission Agent

Commission Agent advises client regarding marketing conditions, purchases and sells goods on their behalf for commission. Studies market rates, supply and demand position of goods in which

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

they deal in various markets. Advises clients accordingly and purchases and sells goods in the market on behalf of customers according to their instructions. Makes necessary arrangements for forwarding and clearing of goods according to instructions of customers. Recovers the commission and other charges incurred, from their clients. Maintains account of purchases and sales effected on behalf of the regular clients and recovers commission etc. periodically. Attends to all correspondence relating to the business.

ISCO 08 Unit Group Details:

Code 2412
Title Financial and Investment Advisors

2412.9900

Financial and Investment Advisors, Other

Accountants, Other includes all other accountants engaged in maintaining accounts, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2412
Title Financial and Investment Advisors

Family 2413

Financial Analysts

Financial Analysts conduct quantitative analyses of information affecting investment programmes of public or private institutions.

Group 242

Administration Professionals

Administration Professionals apply various concepts and theories related to improving the effectiveness of organizations and the individuals within the organization.

Occupations in this Group are classified into the following Families:

2421 Management and Organization Analysts
2422 Policy Administration Professionals
2423 Personal and Careers Professionals
2424 Training and Staff Development Professionals

Family 2421

Management and Organization Analysts

Management and Organization Analysts assist organizations to achieve greater efficiency and solve organizational problems. They study organizational structures, methods, systems and procedures.

2421.0101

Analyst-Research

Primary responsibility of the individual in this job is to organize, analyse, synthesise and summarise information using appropriate analytical methodologies. They need to prepare companies profiles, conducts financial analysis and valuations, benchmarking, collect data using techniques, such as questionnaires, surveys, interviews and electronic data collection as part of the job.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference SSC/Q2601
QP NOS Name Analyst-Research
NSQF Level 7

ISCO 08 Unit Group Details:

Code 2421
Title Management and Organization
Analysts

Family 2422

Policy Administration Professionals

Policy Administration Professionals develop and analyse policies guiding the design, implementation and modification of government and commercial operations and programmes.

Family 2423

Personal and Careers Professionals

Personnel and Careers Professionals provide professional business services related to personnel policies, such as employee recruitment or development, occupational analysis and vocational guidance.

2423.0100

Vocational Guidance Officer/Career Counsellors

Vocational Guidance Officer; Vocational Counsellor guide and counsel individuals in vocational choice vocational adjustment, vocational progress, etc. Interviews and collects information about clients to assess their strength and weaknesses in relation to requirements of various occupations and educational training courses. Collects comprehensive information about occupations,

employment market, educational and training facilities, scholarship facilities and other information relating to world of work. Conducts counselling interviews on vocational and occupational choices in relation to special aptitudes, interests and personality characteristics. Provides occupational information to all those seeking it in person or by post. Conducts group guidance programmes for purposes of disseminating occupational information and promoting vocational maturity. May administer psychological tests of aptitudes, interests, personality traits, etc. as aids in assessment of individuals' strengths and weaknesses. May conduct surveys and studies concerning psychological requirements of different occupations and problems relating to adjustment and efficiency in different fields of activity. May conduct job analysis and study staffing patterns in different industrial and commercial organizations. May assist employers in their recruitment problems by using specialized techniques to determine aptitude, interest values, etc. May organize career week, career exhibition, etc. and deliver lectures on topics relating to vocational guidance to students in schools and colleges.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code 2423
Title Personal and Careers Professionals

2423.0101

Associate-Recruitment

Associate-Recruitment is responsible for supporting recruitment activities such as

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

candidate management, scheduling and co-ordination and head-hunting.

Qualification Pack Details:

QP NOS Reference	SSC/Q2501
QP NOS Name	Associate-Recruitment
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2423
Title	Personal and Careers Professionals

2423.0200

Counsellor

Counsellor; Teacher Counsellor guide or counsel individuals in various problems such as educational, vocational, personal etc., and guides and co-ordinates activities of career masters in schools. Collects educational, occupational, employment, social and related information and studies relevant details of clients obtained from them and other sources. Administers tests of intelligence, aptitudes, interests, personality traits, etc. for obtaining data about individuals to be guided. Collects and studies information relating to environment involved in individual's adjustment. Interviews various persons for collecting information and counsel individuals needing such assistance accordingly, employing suitable techniques. Conducts group-guidance activities to serve various purposes of counselling. Carries out follow up studies on individuals guided, to render further assistance, and to evaluate guidance programmes. Keeps themselves abreast of guidance programmes in schools and co-ordinates their activities to ensure uniformity. May guide Career Masters and conduct research and surveys for purposes relevant to counselling.

ISCO 08 Unit Group Details:

Code	2423
Title	Personal and Careers Professionals

2423.0500

Occupational Analyst

Occupational Analyst; Job Analyst; Occupational Information Officer; Occupational Research Officer collects, analyses and develops occupational data relating to job specifications and work characteristics for purposes of vocational counselling, wage evaluation, utilisation of workers and other personnel practices. Studies jobs being performed in industrial, commercial or other organizations and writes descriptions of elements of jobs and physical and mental qualities needed by worker. Analyses, classifies and correlates occupational data. Develops counselling aids and prepares interviewing aids to facilitate placement of workers. Utilises data to evolve wage-evaluation system and to recommend changes in pay-scale classifications of jobs. May prepare organizational and functional charts and develop testing devices for measuring occupational knowledge of workers.

ISCO 08 Unit Group Details:

Code	2423
Title	Personal and Careers Professionals

2423.9900

Personal and Careers Professionals, Other

Personnel and Occupational Professionals, Other include all other personnel and occupational professionals, engaged in guidance, human resource management,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

job evaluation, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2423

Title Personal and Careers Professionals

Family 2424

Training and Staff Development Professionals

Training and Staff Development Professionals plan, develop, implement and evaluate training and development programmes to ensure management and staff acquire the skills and develop the competencies required by organizations to meet organizational objectives.

2424.0100

Manpower Officer/Area Manager, Human Resource

Manpower Officer assesses manpower supply and requirements, prepares schemes for meeting shortages, conducts enquiry into employment market trends and other man power problems and makes plans for efficient utilisation of human resources and achievement of nations major objectives. Plans, organizes and conducts surveys for collection of data regarding manpower availability and utilisation in different spheres of economic activity, and analyses data from all available sources like census reports and special studies for preparation of reports on selected aspects of manpower problems. Identifies fields to which flow of manpower is not adequate and takes appropriate steps to accelerate flow. Studies problem; of manpower training, labour mobility, labour force participation, relationship of educational and training

programmes to demand for special skills, and labour utilisation in different fields of economic activity. May specialize in any field of study like problems relating to availability and utilisation of scientific manpower, managerial personnel, technical and low-skilled personnel, or white-collar workers. May also examine recruitment and employment matters, service conditions etc., and advise on formulation of manpower policies.

ISCO 08 Unit Group Details:

Code 2423

Title Personal and Careers Professionals

2424.0200

Employment Officer/Operation Head, Employment

Employment Officer manages Employment Exchange carrying out placement and related activities. Interviews employment seekers to obtain factual details of job experience, training obtained etc., and registers them for placement against vacancies notified by employers. Selects registered applicants with appropriate qualifications specified for vacancies and directs or submits particulars of applicants to employers. Maintains liaison with trade unions, employing organizations and solicits notification of vacancies for better organization of local employment market. Maintains contacts with local sources of labour supply and with mobile personnel in other places by circulating particulars of vacancies. Counsels applicants on employment opportunities available, suggesting suitable training and necessary mobility for early employment and also participates in career conferences. Submits statistical and ad hoc reports and conducts inspection of different sections and exchanges as prescribed. Conducts

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

local labour market surveys, and studies trends in employment opportunities. Provides expert advice to employers regarding availability of different categories of personnel and the sources of labour supply. May carry out special surveys and conduct research on subjects connected with employment and manpower planning.

ISCO 08 Unit Group Details:

Code 2423

Title Personal and Careers Professionals

2424.0300

Human Resource Manager

Human Resource Manager plans, directs, and co-ordinates human resource management activities of an organization to maximise the strategic use of human resources and maintain functions such as employee compensation, recruitment, personnel policies, and regulatory compliance. Administer compensation, benefits and performance management systems, and safety and recreation programmes. Advise managers on organizational policy matters such as equal employment opportunity and sexual harassment, and recommend needed changes. Allocate human resources, ensuring appropriate matches between personnel. Analyse statistical data and reports to identify and determine causes of personnel problems and develop recommendations for improvement of organization's personnel policies and practices. Analyse training needs to design employee development, language training and health and safety programmes. Conduct exit interviews to identify reasons for employee termination. Develop, administer and evaluate applicant tests. Identify staff vacancies and recruit, interview and select

applicants. Maintain records and compile statistical reports concerning personnel-related data such as hires, transfers, performance appraisals, and absenteeism rates. Negotiate bargaining agreements and help interpret labour contracts.

ISCO 08 Unit Group Details:

Code 2423

Title Personal and Careers Professionals

2424.0401

Sales Training Manager

Sales Training Manager is responsible for developing sales training modules on features of product line for delivering effective training to the sales function and ensures proper execution of sales process. The individual also manages a team of sales trainers to ensure maximum effectiveness of the sales force and should have an idea about the automotive products, services and sales techniques.

Qualification Pack Details:

QP NOS Reference ASC/Q0201

QP NOS Name Sales Training Manager

NSQF Level 6

ISCO 08 Unit Group Details:

Code 2423

Title Personal and Careers Professionals

2424.0402

Sales/Service Trainer (Dealer)

Sales/Service Trainer (Dealer) is also known as Training Executive, Training In Charge, Training Supervisor, Process Trainer and Field Training Officer etc. A Sales/Service Trainer (Dealer) is responsible for ensuring a trained sales

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and service workforce in the dealership and includes activities such as designing and framing training modules, executing them and recording their effectiveness are also part of the job role. The responsibility also includes implementing the developed modules by the respective OEM to ensure effective brand communication by the sales/service workforce to the end customer.

Qualification Pack Details:

QP NOS Reference	ASC/Q1109
QP NOS Name	Sales/Service Trainer (Dealer)
NSQF Level	6

ISCO 08 Unit Group Details:

Code	2423
Title	Personal and Careers Professionals

2424.0501

Service Training Centre In charge

Service Centre Training In Charge monitors all aspects of training programmes and supervises Services function about IT functions and other Service processes.

Qualification Pack Details:

QP NOS Reference	ASC/Q0802
QP NOS Name	Service Training Centre In charge
NSQF Level	6

ISCO 08 Unit Group Details:

Code	2423
Title	Personal and Careers Professionals

2424.0502

Field Service Trainer

Service Trainer is also known as Field Service Trainer, Service Advisor or Automotive Service Trainer. A Service Trainer will provide training to the Service Executives and dealers of the company on all IT functions of the company, flow of processes, account management and conducting market research and surveys.

Qualification Pack Details:

QP NOS Reference	ASC/Q0801
QP NOS Name	Field Service Trainer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2423
Title	Personal and Careers Professionals

2424.9900

Training and Staff Development Professionals, Other

Training and Staff Development Professionals, Other include professionals who plan, develop, implement and evaluate training and development programmes required by organizations to meet organizational objectives not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2423
Title	Personal and Careers Professionals

Group 243

Sales, Marketing and Public Relations Professionals

Sales, Marketing and Public Relations Professionals plan, develop, co-ordinate and implement programmes of information dissemination to promote

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

organizations, goods and services, and represent companies in selling a range of technical, industrial, medical, pharmaceutical and ICT goods and services.

Occupations in this Group are classified into the following Families:

2431	Advertising and Marketing Professionals
2432	Public Relations Professionals
2433	Technical and Medical Sales Professional (excluding ICT)
2434	Information and Communications Technology Sales Professionals

Family 2431 Advertising and Marketing Professionals

Advertising and Marketing Professionals develop and co-ordinate advertising strategies and campaigns, determine the market for new goods and services, and identify and develop market opportunities for new and existing goods and services.

2431.0100 Market Research Analyst

Market Research Analyst researches market conditions in local, regional, or national areas to determine potential sales of a product or service. May gather information on competitors, prices, sales, and methods of marketing and distribution. May use survey results to create a marketing campaign based on regional preferences and buying habits. Collects and analyses data on customer demographics, preferences, needs, and buying habits to identify potential markets and factors affecting product demand. Conducts research on consumer opinions and marketing strategies, collaborating

with marketing professionals, statisticians, pollsters, and other professionals. Develops and implements procedures for identifying advertising needs. Devises and evaluates methods and procedures for collecting data (such as surveys, opinion polls, or questionnaires), or arranges to obtain existing data. Forecasts and tracks marketing and sales trends, analysing collected data. Gathers data on competitors and analyses their prices, sales, and method of marketing and distribution. Measures and assesses customer and employee satisfaction. Measures the effectiveness of marketing, advertising, and communications programmes and strategies. Monitors industry statistics and follows trends in trade literature. Prepares reports of findings, illustrating data graphically and translating complex findings into written text.

ISCO 08 Unit Group Details:

Code 2431
Title Advertising and Marketing Professionals

2431.0101 Regional Service Marketing Manager

Regional Service Marketing Manager is responsible for the outbound marketing activities for service offerings of the organization. The individual is able to craft the messaging and positioning for service offerings.

Qualification Pack Details:

QP NOS Reference	ASC/Q0701
QP NOS Name	Regional Service Marketing Manager
NSQF Level	6

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0102

Regional Service Process Manager

Regional Service Process Manager is responsible for designing and developing service process framework for services function and also its proper implementation for smoother flow of service operations of OEM products. The individual is also capable of assigning duties to be performed by the sales and services function for smoother flow of service process.

Qualification Pack Details:

QP NOS Reference	ASC/Q 0702
QP NOS Name	Regional Service Process Manager
NSQF Level	6

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0201

Product Brand Manager (Automotive)

Product Manager is responsible for implementation of promotional and branding framework of a product and co-ordination with the sales function to ensure effective implementation of the branding strategies.

Qualification Pack Details:

QP NOS Reference	ASC/Q0503
QP NOS Name	Product Brand Manager

NSQF Level	6
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ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0202

Account Executive (Advertising Agency)

Account Executive (Advertising Agency) is responsible for managing preparation of clients' advertisement end-products.

Qualification Pack Details:

QP NOS Reference	MES/Q0208
QP NOS Name	Account Executive (Advertising Agency)
NSQF Level	6

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0300

Caption Writer

Caption Writer writes caption phrases of dialogue for hearing-impaired and different Indian language-speaking viewers of movie or television productions. Writes captions to describe music and background noises. Watches production and reviews captions simultaneously to determine which caption phrases require editing. Enters commands to synchronize captions with dialogue and place on the screen. Translates different Indian language dialogues into English language captions or English dialogue into different Indian language captions. Operates

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

computerised captioning system for movies or television productions for hearing-impaired and different Indian language speaking viewers. Oversees encoding of captions to master tape of television production. Discusses captions with Directors or Producers of movie and television productions. Edits translations for correctness of grammar, punctuation, and clarity of expression.

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0400

Advertisement Writer

Advertisement Writer; Copywriter composes wording of advertisement, either in descriptive style or in form of slogans, captions, etc., for popularising particular product or establishment. Receives advertisement matter from customer. Writes descriptive matter or slogans in attractive form to advertise merits of product or establishment.

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0501

Market Research Associate-Sales and Marketing/Business Development

Market Research Associate is responsible for undertaking detailed market research to create product backlog or product funnel. These individuals collect data and undertake exhaustive analysis including competitive analysis, to gather intelligence and provide inputs to teams

involved in design, manufacturing or management of product lifecycle.

Qualification Pack Details:

QP NOS Reference	SSC/Q6302
QP NOS Name	Market Research Associate
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0502

Management Trainee-Sales and Marketing/Business Development

Management Trainee Sales and Marketing; Business Development supports ongoing market research work such as data gathering, analysis and preparation of documents to gain relevant insights on customer behaviour and the competitive landscape.

Qualification Pack Details:

QP NOS Reference	SSC/Q6301
QP NOS Name	Management Trainee Sales Marketing/Business Development
NSQF Level	8

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0503

Market Research Associate-Product Marketing

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Market Research Associate is responsible for undertaking detailed market research to create product backlog or product funnel. These individuals collect data and undertake exhaustive analysis including competitive analysis, to gather intelligence and provide inputs to teams involved in design, manufacturing or management of product lifecycle.

Qualification Pack Details:

QP NOS Reference	SSC/Q4102
QP NOS Name	Market Research Associate
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0504

Management Trainee-Product Marketing

Management Trainee supports ongoing market research work such as data gathering, analysis and preparation of documents to gain relevant insights on customer behaviour as well as the competitive landscape.

Qualification Pack Details:

QP NOS Reference	SSC/Q4101
QP NOS Name	Management Trainee – Product Marketing
NSQF Level	8

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0601

Product Executive

Product Executive is responsible for research, representing and advocating products to the customers. The job also involves competitive landscape analysis, developing partnership with third parties, facilitating contractual, product positioning and pricing strategies.

Qualification Pack Details:

QP NOS Reference	SSC/Q6501
QP NOS Name	Product Executive
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0651

Sales Executive (Media Org)

Sales Executive (Media Org) is responsible to close sales transactions with new and existing clients.

Qualification Pack Details:

QP NOS Reference	MES/Q0203
QP NOS Name	Sales Executive (Media Org)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0671

Traffic Co-ordinator

Traffic Co-ordinator is responsible for managing and scheduling advertisement inventory.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	MES/Q0205
QP NOS Name	Traffic Co-ordinator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0700

Creative Writer

Creative Writer develops basic presentation approaches and directs layout design and copy writing for promotional material such as books, magazines, newspapers, television, posters and packaging. Reviews materials and information presented by client and discusses various production factors to determine most desirable presentation concept. Confers with heads of art, copy writing and production departments to discuss client requirements and scheduling, outline basic presentation concepts and co-ordinate creative activities. Reviews and approves art and copy materials developed by staff and presents final layouts to client for approval.

ISCO 08 Unit Group Details:

Code	2431
Title	Advertising and Marketing Professionals

2431.0800

Propagandist

Propagandist creates buying interest amongst public for products by publicising them at street-corners, exhibitions, village-fairs, through various publicity

media such as talks, demonstrations, filmstrips, etc. Plans tour programmes and visits places accordingly. Selects suitable site for giving demonstrations. Makes necessary announcements through loud speaker etc., to attract public. Introduces products to public assembled and explains their working and utility through actual demonstrations, charts, filmstrips, etc. Canvasses products among local dealers and persuades them to stock goods to meet likely local demands. Books orders and supplies products to local dealers either immediately or arranges to supply them expeditiously. Submits reports of their canvassing activities to higher authorities and seeks their guidance where necessary. May play musical gramophone records to attract public for giving demonstration. May distribute free samples to assembled public and effect retail sale.

ISCO 08 Unit Group Details:

Code	2412
Title	Financial and Investment Advisors

2431.9900

Advertising and Marketing Professionals, Other

Advertising and Marketing Professionals, Other include marketing professionals who develop and co-ordinate advertising strategies and campaigns, determine the market for new goods and services, and identify and develop market opportunities for new and existing goods and services not elsewhere classified.

ISCO 08 Unit Group Details:

Code	
Title	

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family 2432 **Public Relations Professionals**

Public Relations Professionals plan, develop, implement and evaluate information and communication strategies that create an understanding and a favourable view of businesses and other organizations, their goods and services, and their role in the community.

2432.0100 **Publicity Officer**

Publicity Officer prepares publicity material and issues it through press, screen or Radio/TV to attain effective publicity for organizations, Government, business houses or other institutions. Prepares news releases, scripts, salient features and other publicity materials to be published. Publicises publicity material through appropriate media such as display at important places, exhibitions, films, newspapers, radio/TV and personal contacts. Scrutinises newspaper and magazines to collect news and views to ensure effective publicity relating to the publicised material. May tour area and contact public to promote mutual goodwill. May maintain liaison with press representatives.

ISCO 08 Unit Group Details:

Code 2432
Title Public Relations
Professionals

2432.0200 **Public Relations Officer**

Public Relation Officer; Liaison Officer maintains liaison between organization employing him and general public for promoting goodwill and better

understanding. Distributes publicity material and issues press releases to popularise the organizations' activities. Studies newspapers, journals etc. carefully and notes trends of public opinion on policies and activities of organizations. Explains and helps employer to understand public opinion and criticism of policies. Meets press and public representatives, explains special features of the organizations employing them. Distributes publicity material, arranges film shows etc. to cultivate appreciation of organizations' activities and counteracts criticisms. Arranges visits of important persons and special parties to establishment for explaining their activities. Participates in exhibitions and displays posters, charts, models etc. to public. May select suitable publicity material; write special feature articles, reports or pamphlets. May participate and get photographs/video graphs taken of important functions and prepare other audio visual aids. May edit journals or periodicals for publicising activities of establishments or organizations. May maintain information centres and organize community relation activities.

ISCO 08 Unit Group Details:

Code 2432
Title Public Relations
Professionals

2432.0201 **Digital Marketing/Social Media Manager**

Digital Marketing/Social Media Manager is responsible for designing and supervising implementation of the complete Digital and Social media marketing strategy for the assigned product.

Qualification Pack Details: QP NOS Reference ASC/Q0501

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Digital Marketing/Social Media Manager
NSQF Level	6

Business Professionals, Other include professionals engaged in studying, advising on and applying operational methods relating to various aspects of business undertakings, such as marketing, advertising, public relations, application of rules concerning patents, or steps to be taken in setting up and running a business, and home economics principles not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2432
Title	Public Relations Professionals

2432.0300

Information Officer

Information Officer collects and disseminates useful information connected with employers' activities and conducts information centre to educate and benefit public. Plans and prepares educational exhibits, charts, diagrams and other forms of audio visual aids. Displays publicity materials in information centre in attractive manner. Stocks books, pamphlets and other literature relating to activities of employer or institution for distribution or sale. Conducts persons and parties round information centre and explains charts and other exhibits to them. Distributes complimentary copies of literature or sells publications. Maintains proper accounts regarding sales and stock. Renders periodical reports to authorities concerned. May address public gatherings, private clubs and schools. May answer queries and explain achievements made.

ISCO 08 Unit Group Details:

Code	2432
Title	Public Relations Professionals

2432.9900

Public Relations Professionals, Other

ISCO 08 Unit Group Details:

Code	2432
Title	Public Relations Professionals

Family 2433

Technical and Medical Sales Professional (excluding ICT)

Technical and Medical Sales Professionals (excluding ICT) represent companies in selling a range of industrial, medical and pharmaceutical goods and services to industrial, business, professional and other establishments.

2433.0101

Area Sales Officer

Area Sales Officer: Business Development Executive; Marketing Executive is responsible for marketing products and services of the organizations in the designated geography. The individual at work is responsible for studying the market, understanding the client requirement and offering products and services to satisfy the customer requirement. The individual at work co-ordinates with the channel sales partners and interacts directly with customers for sale of products and services.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	ELE/Q7202
QP NOS Name	Area Sales Officer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2433
Title	Technical and Medical Sales Professional (excluding ICT)

2433.0201

Medical Representative

Medical Representatives contact physicians, hospitals, nursing homes, a druggist etc. in specified areas and introduces medical products of his company to stimulate sales. Plans daily visits and calls on doctors, hospitals, nursing homes, etc. in their area. Introduces to physicians medical products of their company and explains their merits. Distributes literature, catalogue, samples other publicity material, etc. for guidance and prescription. Follows up their visit, ascertains views regarding their products and induces clients to prescribe their products to patients. Persuades druggists and dealers of their area to stock their products to meet likely demands. Offers credit facilities, commission, etc. as authorised by company. Books orders and forwards them to controlling office for compliance. Submits daily report of their canvassing activities and gives suggestions for improving sales. May collect payment for products sold.

Qualification Pack Details:

QP NOS Reference	LFS/Q0401
QP NOS Name	Medical Sales Representative
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2433
Title	Technical and Medical Sales Professional (excluding ICT)

2433.0301

Sales Executive-Medical Electronics

Sales Executive-Medical Electronics is also called Salesman or Sales Person, the Sales Executive sells medical devices to customers. The individual at work approaches hospitals, diagnostic centres, doctors, wholesalers, retailers and pitches company's products. The individual is responsible for sale of medical devices to customers.

Qualification Pack Details:

QP NOS Reference	ELE/Q7601
QP NOS Name	Sales Executive-Medical Electronics
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2433
Title	Technical and Medical Sales Professional (excluding ICT)

2433.0401

Sales Executive-Consumer Electronics

Sales Executive-Consumer Electronics is also called 'Business Development Executive' or 'Marketing Executive', the Sales Executive is responsible for marketing and selling the products and services of the organization. The individual at work is responsible for studying the market, understanding the client requirement and offering products and services to satisfy the customer requirement. The individual at work co-ordinates with the channel sales partners

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and interacts directly with clients for sale of products and services.

Qualification Pack Details:

QP NOS Reference	ELE/Q3201
QP NOS Name	Sales Executive-Consumer Electronics
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2433
Title	Technical and Medical Sales Professional (excluding ICT)

2433.0501

Sales Executive-Solar Electronics

Sales Executive-Solar Electronics is also called 'Business Development Executive' or 'Marketing Executive', the Sales Executive is responsible for marketing and selling the solar products and services of the organization. The individual at work is responsible for studying the market, understanding the customer requirement and offering products and services to satisfy the customer requirement. The individual co-ordinates with the channel sales partners and interacts directly with customers for sale of products and services.

Qualification Pack Details:

QP NOS Reference	ELE/Q5601
QP NOS Name	Sales Executive-Solar Electronics
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2433
Title	Technical and Medical Sales Professional (excluding ICT)

2433.0601

Business Development Executive

Business Development Executive is also called 'Marketing Executive'. The Business Executive is responsible for marketing and selling the products and services of the organization. The individual at work is responsible for studying the market, understanding the customer requirement and offering products and services to satisfy the customer requirement. The individual at work co-ordinates and interacts with customers for sale of products and services.

Qualification Pack Details:

QP NOS Reference	ELE/Q1101
QP NOS Name	Business Development Executive
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2433
Title	Technical and Medical Sales Professional (excluding ICT)

2433.0700

Field Officer, Insurance

Field Officer, Insurance; Insurance Inspector plans, organizes and develops various types of insurance business (life, fire, marine, accident, etc.) and guides and supervises work of Insurance Agents. Works out plans to develop business in a given area or organization. Selects and hires new agents and trains them in selling insurance to clients. Draws out plan of work for their agents and guides and supervises their day-to-day work by contacting prospective clients along with their agent if considered necessary. Encourages agents to work in scientific manner by persuading them to make

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

regular calls on clients and to maintain their work-book (daily record). Recommends appointments of suitable agents in replacement of inactive agents when considered necessary. Gives publicity in their area to various new plans devised by the insurance company. Maintains social contacts with all important persons of locality. Ensures that maximum business from given area or organizations is secured. Keeps authorities informed of developments in their area or organization. Investigates claim cases. Acts as Liaison Officer between corporation, insuring public and Commission Agent. May collect first premium deposit.

ISCO 08 Unit Group Details:

Code	2433
Title	Technical and Medical Sales Professional (excluding ICT)

Family 2434 Information and Communications Technology Sales Professionals

Information and Communications Technology (ICT) Sales Professionals sell, at the wholesale level, a range of computer hardware, software and other information and communications technology goods and services including installations and provide specialized information as required.

2434.0101 Sales and Pre-Sales Analyst

Sales and Pre-Sales Analyst is responsible for new business development by capturing and understanding the requirements and proposing the right solution. They manage relationships with various internal and external stakeholders

to ensure inflow of required inputs. This role also involves supporting all aspects of the pre-sales cycle from requirement analysis to successful evaluation and solution.

Qualification Pack Details:

QP NOS Reference	SSC/Q1101
QP NOS Name	Sales and Pre-Sales Analyst
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2434
Title	Information and Communication Technology Sales Professionals

2434.0201

Sales/Pre-Sales Executive

Sales/Pre-Sales Executive is responsible for new business development by capturing and understanding the requirements and proposing the right solution. They manage relationships with various internal and external stakeholders to ensure inflow of required inputs. This role also involves supporting all aspects of the pre-sales cycle from requirements analysis to successful evaluation and solution.

Qualification Pack Details:

QP NOS Reference	SSC/Q6303
QP NOS Name	Sales/Pre-Sales Executive
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2434
Title	Information and Communication

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Technology Sales
Professionals

Occupations in this Sub Division are classified into the following Groups:

Sub Division 25

Information and Communication Technology Professionals

Information and Communications Technology Professionals conduct research, plan, design, write, test, provide advice and improve information technology systems, hardware, software and related concepts for specific applications; develop associated documentation including principles, policies and procedures; and design, develop, control, maintain and support databases and other information systems to ensure optimal performance and data integrity and security.

Tasks performed usually include: researching information technology use in business functions; identifying areas for improvement and researching the theoretical aspects and operational methods for the use of computers; evaluating, planning and designing hardware or software configurations for specific applications including for Internet, Intranet and multimedia systems; designing, writing, testing and maintaining computer programmes; designing and developing database architecture and database management systems; developing and implementing security plans and data administration policy, and administering computer networks and related computing environments; analysing, developing, interpreting and evaluating complex system design and architecture specifications, data models and diagrams in the development, configuration and integration of computer systems.

251	Software and Application Developers, and Analysts
252	Database and Network Professionals

Group 251 Software and Application Developers, and Analysts

Software and Application Developers and Analysts conduct research, plan, design, write, test, provide advice on and improve information technology systems, such as hardware, software and other applications to meet specific requirements.

Occupations in this Group are classified into the following Families:

2511	System Analysts
2512	Software Developers
2513	Web and Multimedia Developers
2514	Applications Programmers
2519	Software and Application Developers and Analysts, Not Elsewhere Classified

Family 2511 System Analysts

Systems Analysts conduct research, analyse and evaluate client information technology requirements, procedures or problems, and develop and implement proposals, recommendations, and plans to improve current or future information systems.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2511.0100

System Analysts

System Analyst analyses user requirements, procedures, and problems to automate processing or to improve existing computer system. Confers with personnel of organizational units involved to analyse current operational procedures, identify problems, and learn specific input and output requirements, such as forms of data input, how data is to be summarised, and formats for reports. Writes detailed description of user needs, programme functions, and steps required to develop or modify computer programme. Reviews computer system capabilities, workflow, and scheduling limitations to determine if requested programme or programme change is possible within existing system. Studies existing information processing systems to evaluate effectiveness and develops new systems to improve production or workflow as required. Prepares workflow charts and diagrams to specify in detail operations to be performed by equipment and computer programmes and operations to be performed by personnel in system. Conducts studies pertaining to development of new information systems to meet current and projected needs. Plans and prepares technical reports, memoranda, and instructional manuals as documentation of programme development. Upgrades system and corrects errors to maintain system after implementation. May assist COMPUTER PROGRAMMER in resolution of work problems related to flow charts, project specifications or programming. May prepare time and cost estimates for completing projects. May direct and co-ordinate work of others to develop, test, install, and modify programs.

ISCO 08 Unit Group Details:

Code	2511
Title	Systems Analysts

2511.0101

Deployment Engineer

Deployment Engineer is responsible for ensuring that software systems are fully deployed, implemented and functioning and are configured with the appropriate hardware requirements.

Qualification Pack Details:

QP NOS Reference	SSC/Q0301
QP NOS Name	Deployment Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2511
Title	System Analysts

2511.0102

Engineer-Software Transition

Engineer-Software Transition is responsible for change management for implementing new products and the intended communication to all stakeholders.

Qualification Pack Details:

QP NOS Reference	SSC/Q7101
QP NOS Name	Engineer-Software Transition
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2511
Title	System Analysts

2511.0103

Engineer-Packaging

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Engineer-Packaging is responsible for creating a new, company-specific or industry vertical-specific image of a software product before releasing it.

Qualification Pack Details:

QP NOS Reference	SSC/Q6901
QP NOS Name	Engineer-Packaging
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2511
Title	System Analysts

2511.0104 Engineer-Product Lifecycle Management (PLM)

Product Lifecycle Management (PLM) is responsible for helping implement and manage the appropriate PLM package and strategy for an organization using commercial packages like Wind chill, Teamcenter, Enovia, SAP-PLM and so on. The individuals in these roles manage different versions/releases of products and engage in customer support.

Qualification Pack Details:

QP NOS Reference	SSC/Q5201
QP NOS Name	Engineer-Product Lifecycle Management (PLM)
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2511
Title	System Analysts

2511.0105 Analyst

Analyst understands the clients' business requirements and translates them into technology requirements for the

technology consultants. They act as facilitators in the process of providing solutions and development of the end product/service.

Qualification Pack Details:

QP NOS Reference	SSC/Q0701
QP NOS Name	Analyst
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2511
Title	System Analysts

2511.0106 Support Engineer

Support Engineer is responsible for planning and managing project related activities for the integration of new hardware and software to the client site as well as migration to the desired platform. Deployment involves ensuring that hardware and software systems are fully deployed, implemented and functioning.

Qualification Pack Details:

QP NOS Reference	SSC/Q6101
QP NOS Name	Support Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2511
Title	System Analysts

2511.9900 System Analysts, Other

Computer System Designers and Analysts, Other, Computer System Designers and Analysts' conducts research, improve or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

develop computing concepts and advise on or engage in their practical application and all other Computer System Designers and Analysts not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2511
Title	System Analysts

Family 2512

Software Developers

Software Developers research, analyse and evaluate requirements for existing or new software applications and operating systems, and design, develop, test and maintain software solutions to meet these requirements.

2512.0100

Computer Programmer/Software Engineer

Computer Programmer converts data from project specifications and statements of problems and procedures to create or modify computer programs. Prepares or receives from SYSTEMS ANALYST, detailed workflow chart and diagram to illustrate sequence of steps that the program must follow and to describe input, output, and logical operations involved. Analyses workflow chart and diagram, applying knowledge of computer capabilities, subject matter, and symbolic logic. Confers with Supervisor and representatives of departments concerned with programming to resolve questions of program intent, data input, output requirements, and inclusion of internal checks and controls. Converts detailed logical flow chart to a language that can be processed by a computer.

Enters program codes into the computer system. Inputs test data into computer. Observes the computer monitor screen to interpret program-operating codes. Corrects program errors, using methods, such as modifying the program or altering sequence of the program steps. Writes instructions to guide operating personnel during production runs. Analyses, reviews, and rewrites programs to increase operating efficiency or to adapt the program to new requirements. Compiles and writes documentation of program development and subsequent revisions. May train workers to use the program. May assist COMPUTER OPERATORS to resolve problems in running a computer program. May work with SYSTEMS ANALYST to obtain and analyse project specifications and flow charts. May direct and co-ordinate work of others to write, test, and modify computer programs.

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0201

Software Engineer

Software Engineer researches, designs, and develops computer software systems, in conjunction with hardware product development, for medical, industrial, communications, aerospace, and scientific applications, applying principles and techniques of computer science, engineering, and mathematical analysis: Analyses software requirements to determine feasibility of design within time and cost constraints. Consults with Hardware Engineers and other engineering staff to evaluate interface between hardware and software, and operational and performance requirements of the system. Formulates

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and designs software system, using scientific analysis and mathematical models to predict and measure outcome and consequences of design. Develops and directs software system testing procedures, programming and documentation. Consults with the customer regarding maintenance of software system. May co-ordinate installation of software system.

Qualification Pack Details:

QP NOS Reference	SSC/Q4601
QP NOS Name	Software Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0202

Test Engineer-Software

Test Engineer-Software is responsible for ensuring the software product meets the specified requirements and produces the desired results. These individuals perform tests, develop and execute test plans and report and rectify defects to ensure that quality outputs are generated.

Qualification Pack Details:

QP NOS Reference	SSC/Q4901
QP NOS Name	Test Engineer-Software
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0203

Design Engineer (Product Engineer)

Design Engineer is responsible for conceptualizing and developing a product

based on customer/market needs. Involvement is in all aspects of software development including requirement analysis, design, implementation and testing.

Qualification Pack Details:

QP NOS Reference	SSC/Q6601
QP NOS Name	Design Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0204

Software Developer-Application Development

Software Developer is responsible for development of software applications and interfaces as well as enhancements to existing packaged applications or pre-engineered templates. The job also involves providing support to custom applications, debugging, maintenance and documentation.

Qualification Pack Details:

QP NOS Reference	SSC/Q0501
QP NOS Name	Software Developer-Application Development
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0205

Junior Software Developer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Junior Software Developer is one of the many entry level roles in the software industry including support and help desk, testing, user interaction design, maintenance, enhancement, development and documentation. They are responsible for assisting in performing the key activities and tasks involved in the assigned role.

Qualification Pack Details:

QP NOS Reference	SSC/Q0508
QP NOS Name	Junior Software Developer
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0206

Engineer Trainee-IT Services

Engineer Trainee is responsible for supporting the work area/domain they are aligned to by assisting in performing the key activities and tasks involved.

Qualification Pack Details:

QP NOS Reference	SSC/Q0507
QP NOS Name	Engineer Trainee – IT Services
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0207

Engineer Trainee-Engineering Analysis

Engineer Trainee supports engineering analysis activities such as engineering

analysis, hardware and software development, research, testing etc.

Qualification Pack Details:

QP NOS Reference	SSC/Q4202
QP NOS Name	Engineer Trainee – Engineering Analysis
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0300

Programmer Analyst

Programmer Analyst plans, develops, tests, and documents computer programs, applying knowledge of programming techniques and computer systems: Evaluates user request for new or modified programs, such as for financial or human resource management system, clinical research trial results, statistical study of traffic patterns, or analysing and developing specifications for bridge design, to determine feasibility, cost and time required, compatibility with current system, and computer capabilities. Consults with user to identify current operating procedures and clarify program objectives. Reads manuals, periodicals, and technical reports to learn ways to develop programs that meet user requirements. Formulates plan-outlining steps required to develop programs, using structured analysis and design. Submits plans to user for approval. Prepares flowcharts and diagrams to illustrate sequence of steps that a program must follow and to describe logical operations involved. Designs computer terminal screen displays to accomplish goals of user request. Converts project specifications, using flowcharts and diagrams into sequence of detailed

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

instructions and logical steps for coding into a language that can be processed by a computer, applying knowledge of computer programming techniques and computer languages. Enters program codes into the computer system. Enters commands into computer to run and test programs. Reads computer printouts or observes display screen to detect syntax or logic errors during program test, or uses diagnostic software to detect errors. Replaces, deletes, or modifies codes to correct errors. Analyses, reviews, and alters programs to increase operating efficiency or adapt to new requirements. Writes documentation to describe program development, logic, coding, and corrections. Writes manual for users to describe installation and operating procedures. Assists users to solve operating problems. Recreates steps taken by user to locate source of problem and rewrites programs to correct errors. May use computer-aided software tools, such as flowchart design and code generation, in each stage of system development. May train users to use a program. May oversee installation of hardware and software. May provide technical assistance to program users. May install and a test program at the user site. May monitor performance of the program after implementation. May specialize in developing programs for business or technical applications.

ISCO 08 Unit Group Details:

Code 2512
Title Software Developers

2512.0301

Software Developer-Product Development and Delivery

Software Developer is responsible for using specialized knowledge of software

programming languages, software integration and delivery platforms to build software products and deliver business solutions. The job also involves application enhancement, debugging, maintenance and documentation.

Qualification Pack Details:

QP NOS Reference	SSC/Q6702
QP NOS Name	Software Developer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0401

FPGA Design Engineer

FPGA Design Engineer is also called, 'FPGA Programmer', the FPGA Design Engineer compiles, edits, links and debugs programs to design the FPGA and loads it into the hardware. The individual at work develops the architectural design and compiles programs in programming languages such as Verilog, VHDL and loads the program into the FPGA.

Qualification Pack Details:

QP NOS Reference	ELE/Q8201
QP NOS Name	FPGA Design
	Engineer
NSQF Level	6

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0501

Embedded Software Engineer

Embedded Software Engineer is also called 'Embedded Software Developer', the Embedded Software Engineer is

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

responsible for developing software module for the embedded system. The individual at work assesses the embedded systems' specification requirement, develops software, tests and validates the software in co-ordination with Design Engineers for system integration.

Qualification Pack Details:

QP NOS Reference	ELE/Q1501
QP NOS Name	Embedded Software Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0601

Design Engineer-Engineering Analysis

Design Engineer-EA is responsible for carrying out engineering analysis problems like stress calculations, static and dynamic analysis, thermal analysis, etc. They also provide support in the assessment and testing of advanced technology systems, subsystems and components.

Qualification Pack Details:

QP NOS Reference	SSC/Q4401
QP NOS Name	Design
Engineer-EA	
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0701

Application Maintenance Engineer

Application Maintenance Engineer is responsible for ensuring the availability of an application or product for end users. Such roles provide on-going/ad-hoc support for software products or customized applications aimed towards correction of faults/bugs or improvement of performance

Qualification Pack Details:

QP NOS Reference	SSC/Q0201
QP NOS Name	Application Maintenance Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

2512.0800

Programmer, Engineering and Scientific/System Programmer

Programmer, Engineering and Scientific converts scientific, engineering, and other technical problem formulations to format that can be processed by a computer: Resolves symbolic formulations, prepares flow charts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. Confers with other engineering and technical personnel to resolve problems of intent, inaccuracy, or feasibility of computer processing. Enters the program into a computer system. Reviews results of computer runs with the concerned personnel to determine necessity for modifications or reruns. Develops new subroutines or expands program to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

simplify statement, programming, or coding of future problems. May direct and co-ordinate activities of COMPUTER PROGRAMMERS working as part of the project team.

ISCO 08 Unit Group Details:

Code	2512
Title	Software Developers

Family 2513

Web and Multimedia Developers

Web and Multimedia Development Professionals combine design and technical knowledge to research, analyse, evaluate, design, program and modify websites, and applications that draw together text, graphics, animations, imaging, audio and video displays, and other interactive media.

2513.0101

Web Developer

Web Developer is responsible for designing and maintaining web-based applications that include static and dynamic content. This includes the design, layout and coding of a website. They may work standalone or along with application/functional developers as part of the overall solution that includes a web based component.

Qualification Pack Details:

QP NOS Reference	SSC/Q0503
QP NOS Name	Web Developer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2513
Title	Web and Multimedia Developers

2513.0201

User Interface Developer

UI Developer is responsible for creating complex user interfaces for a variety of applications, such as computer programs, databases and websites.

Qualification Pack Details:

QP NOS Reference	SSC/Q0502
QP NOS Name	UI Developer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2513
Title	Web and Multimedia Developers

2513.0301

Media Developer-Product Development and Delivery

Media Developer-Product Development and Delivery is responsible for designing and improving the look and feel, functionality and visual appeal of the developed application. They may work independently or along with application/functional developers to improve the aesthetics of the application being developed.

Qualification Pack Details:

QP NOS Reference	SSC/Q6703
QP NOS Name	Media Developer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2513
Title	Web and Multimedia Developers

2513.0302

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Media Developer-Application Development

Media Developer-Application Development is responsible for designing and improving the look and feel, functionality and graphics appeal of the developed application. They may work standalone or along with application/functional developers to improve the aesthetics of the application being developed.

Qualification Pack Details:

QP NOS Reference SSC/Q 0504
QP NOS Name Media Developer
NSQF Level 5

ISCO 08 Unit Group Details:

Code 2513
Title Web and Multimedia Developers

Family 2514

Application Programmers

Application Programmers write and maintain programmable code outlined in technical instructions and specifications for software applications and operating systems.

2514.9900

Computer Programmers, Other

Computer Programmers, Other are computer programmers who write, test and maintain computer programs to meet the needs of users of computer systems and all other Computer Programmers not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2519

Title Software and Applications Developers and Analysts Not Elsewhere Classified

Family 2519

Software and Application Developers and Analysts, Not Elsewhere Classified

This unit group covers software and applications developers and analysts not classified elsewhere in minor group 251, Software and applications developers and analysts. For instance, the group includes those professionals specialising in quality assurance including software testing.

2519.0100

System Programmer

System Programmer co-ordinates installation of computer operating system software and tests, maintains, and modifies software, using computer terminal: Reads loading and running instructions for system software, such as task scheduling, memory management, computer file system, or controlling computer input and output, and loads tape into tape drive or transfers software to magnetic disk. Initiates test of system programs and observes readout on monitor of computer system to detect errors or work stoppage. Enters code changes into computer system to correct errors. Analyses performance indicators, such as system's response time, number of transactions per second and number of programs being processed at once, to ensure that system is operating efficiently. Changes system software so that system performance meets objectives. Reviews computer system capabilities, workflow, and scheduling limitations to determine if requested changes to operating system

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

are possible. Writes description of steps taken to modify system and procedures required to implement new software. Assists users having problems with use of system software. May train users, to use system software. May prepare workflow charts and diagrams to modify system software. May visit vendors to observe demonstration of systems software. May administer and monitor computer program that controls user access to system. May review productivity reports and problem records to evaluate performance of computer systems.

ISCO 08 Unit Group Details:

Code	2519
Title	Software and Applications
	Developers and Analysts
	Not Elsewhere Classified

2519.0300

Quality Assurance Analyst (Computers)

Quality Assurance Analyst (Computers) evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines. Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and efficiently. Reviews new or modified programs, including documentation, diagram, and flow chart, to determine whether the program performs according to user request and conforms to guidelines. Recommends program improvements or corrections to programmers. Reviews computer-operating log to identify program processing errors. Enters instructions into the computer to test

program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of the program. Conducts compatibility tests with vendor-provided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensures efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility programs to test, track, and verify defects in software programs. May write programs to create new procedures or modify existing procedures. May train software program users.

ISCO 08 Unit Group Details:

Code	2519
Title	Software and Applications
	Developers and Analysts
	Not Elsewhere Classified

2519.0301

Quality Assurance Engineer-IT Services

QA Engineer IT Services is responsible for co-ordination with the support and operations teams to maintain quality related schedules like audits, records and reports. The job involves setting quality standards for products, systems and processes within the organization,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

followed by ensuring their effective implementation.

Qualification Pack Details:

QP NOS Reference	SSC/Q1302
QP NOS Name	QA Engineer – IT Services
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2519
Title	Software and Applications Developers and Analysts Not Elsewhere Classified

2519.0302

Test Engineer-IT Services

Test Engineer is responsible for development and co-ordination of scheduled and unscheduled test plans and conducting software compatibility tests with programs, hardware, operating systems, or network environments. The job involves documenting, reporting and tracking software defects using manual testing software.

Qualification Pack Details:

QP NOS Reference	SSC/Q1301
QP NOS Name	Test Engineer – IT Services
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2519
Title	Software and Applications Developers and Analysts Not Elsewhere Classified

2519.0401

Quality Assurance Engineer-Software Products

QA Engineer is responsible for designing and implementing Quality Assurance, norms, standards and guidelines which are to be followed across the organization.

Qualification Pack Details:

QP NOS Reference	SSC/Q7002
QP NOS Name	QA Engineer – Software Products
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2519
Title	Software and Applications Developers and Analysts Not Elsewhere Classified

2519.0402

Test Engineer-Software Products

Test Engineer-Software Products are responsible for development and co-ordination of scheduled and unscheduled test plans and conducting software compatibility tests with programs, hardware, operating systems, or network environments. The job involves documenting, reporting and tracking software defects using manual testing software.

Qualification Pack Details:

QP NOS Reference	SSC/Q7001
QP NOS Name	Test Engineer-Software Products
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2519
Title	Software and Applications Developers and Analysts Not Elsewhere Classified

2519.0501

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Quality Engineer

Quality Engineer is responsible for designing and implementing quality assurance initiatives for an organization. They focus on process re-engineering, statistical quality control and other quality initiatives such as Six-Sigma and Kaizen.

Qualification Pack Details:

QP NOS Reference	SSC/Q4801
QP NOS Name	Quality Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2519
Title	Software and Applications Developers and Analysts
	Not Elsewhere Classified

Group 252

Database and Network Professionals

Database and Network Professionals design, develop, control, maintain and support the optimal performance and security of information technology systems and infrastructure, including databases, hardware and software, networks and operating systems.

Occupations in this Group are classified into the following Families:

2521	Database designers and Administrators
2522	Systems Administrators
2523	Computer Network Professionals
2529	Database and Network Professionals, Not Elsewhere Classified

Family 2521

Database Designers and Administrators

Database Designers and Administrators design, develop, control, maintain and support the optimal performance and security of databases.

2521.0100

Database Design Analyst

Database Design Analyst Designs logical and physical databases and co-ordinates database development as part of project team, applying knowledge of database design standards and database management system. Reviews project request describing database user needs. Estimates time and cost required to accomplish project. Determines if project requires creating series of new programs or modifying existing programs that access data stored in databases. Attends specification meeting with project team workers to determine scope and limitations of a project. Reviews workflow chart developed by PROGRAMMER-ANALYST to understand the tasks a computer will perform, such as updating records. Reviews procedures in database management system manuals for making changes to database, such as defining, creating, revising, and controlling database. Revises company definition of data as defined in data dictionary (information about data, including name, description, source of data item, and key words for categorising and searching for data item descriptions). Determines and enters changes to data dictionary descriptions, including type, structure, and intended use of data within the system, using a computer or assigns data entry work to programmers. Develops data models describing data elements and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

how they are used, following procedures and using pen and template or computer software. Creates description to enable PROGRAMMER ANALYST to understand how programs should access data. Writes a description of how a user can access data, referred to as logical database. Writes physical database descriptions, such as location, space requirements, and access method, to protect company data resources against unauthorized access and accidental destruction, according to computer industry standards and knowledge of database management systems. May specialize in adding, deleting, and modifying data items in data dictionary. Workers typically specialize in one or more types of database management systems.

ISCO 08 Unit Group Details:

Code 2521
Title Database Designers and
 Administrators

2521.0202

Junior Data Associate

Junior Data Associate is responsible for designing and implementing processes and layouts for complex, large-scale data sets used for modelling, data mining, and research purposes. Responsibilities also include designing and implementing statistical data quality procedures around new data sources.

Qualification Pack Details:

QP NOS Reference SSC/Q0401
QP NOS Name Junior Data
 Associate
NSQF Level 7

ISCO 08 Unit Group Details:

Code 2521

Title Database Designers and
 Administrators

Family 2522

Systems Administrators

Systems Administrators develop, control, maintain and support the optimal performance and security of information technology systems.

2522.0100

Database Administrator

Database Administrator co-ordinates physical changes to computer databases; and codes, tests, and implements physical database, applying knowledge of database management system: Designs logical and physical databases or reviews description of changes to database design to understand how changes to be made affect physical database (how data is stored in terms of physical characteristics, such as location, amount of space, and access method). Establishes physical database parameters. Codes database descriptions and specifies identifiers of database to database management system or directs others in coding database descriptions. Calculates optimum values for database parameters, such as amount of computer memory to be used by database, following manuals and using calculator. Specifies user access level for each segment of one or more data items, such as insert, replace, retrieve, or delete data. Specifies which users can access databases and what data can be accessed by user. Tests and corrects errors, and refines changes to database. Enters codes to create production database. Selects and enters codes of utility programs to monitor database performance, such as

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

distribution of records and amount of available memory. Directs programmers and analysts to make changes to database management systems. Reviews and corrects programs. Answers user questions. Confers with co-workers to determine impact of database changes on other systems and staff cost for making changes to the database. Modifies database programs to increase processing performance, referred to as performance tuning. Workers typically specialize in one or more types of database management systems. May train users.

ISCO 08 Unit Group Details:

Code 2522
Title Systems Administrators

2522.0201 Security Analyst

Security Analyst is responsible for protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, perusal, inspection, recording, or destruction. They also need to ensure the confidentiality, integrity and availability of data to the 'right' users within/outside of the organization.

Qualification Pack Details:

QP NOS Reference SSC/Q0901
QP NOS Name Security Analyst
NSQF Level 7

ISCO 08 Unit Group Details:

Code 2522
Title Systems Administrators

Family 2523

Computer Network Professionals

Computer Network Professionals research, analyse and recommend strategies for network architecture and development, implement, manage, maintain and configure network hardware and software, and monitor, troubleshoot and optimise performance.

2523.0100 Data Communication Analyst/Network Administrator

Data Communication Analyst researches, tests, evaluates, and recommends data communications hardware and software: Identifies areas of operation which need upgraded equipment, such as modems, fibre optic cables and telephone wires. Conducts survey to determine user needs. Reads technical manuals and brochures to determine equipment which meets establishment requirements. Visits vendors to learn about available products or services. Tests and evaluates hardware and software to determine efficiency, reliability, and compatibility with existing system, using equipment such as computer terminal and modem. Analyses test data and recommends hardware or software for purchase. Develops and writes procedures for installation, use, and solving problems of communications hardware and software. Monitors system performance. Trains users in use of equipment. Assists users to identify and solve data communication problems. May write technical specifications to send to vendors for bid. May oversee or assist in the installation of communications hardware. May perform minor equipment repairs.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code	2523	use new or modified equipment. May monitor functioning of equipment to ensure system operates in conformance with specifications.
Title	Computer Network Professionals	

2523.0200

Computer System Hardware Analyst/Hardware Engineer

Computer System Hardware Analyst analyses data processing requirements to plan data processing systems that provide system capabilities required for projected workloads and plans layout and installation of new system or modification of existing system. Confers with Data Processing and Project Managers to obtain information on limitations and capabilities of existing system and capabilities required for data processing projects and projected work load. Evaluates factors such as number of departments serviced by data processing equipment, reporting formats required, volume of transactions, time requirements and cost constraints, and need for security and access restrictions to determine hardware configurations. Analyses information to determine, recommend, and plan layout for type of computers and peripheral equipment, or modifications to existing equipment and system, that will provide capability for proposed project or work load, efficient operation, and effective use of allotted space. May enter data into computer terminal to store, retrieve, and manipulate data for analysis of system capabilities and requirements. May specify power supply requirements and configuration. May recommend purchase of equipment to control dust, temperature, and humidity in area of system installation. May specialize in one area of system application or in one type or make of equipment. May train users to

ISCO 08 Unit Group Details:

Code	2523
Title	Computer Network Professionals

2523.0301

Tester/Test Engineer-Hardware

Tester/Test Engineer-Hardware tests hardware and verifies that the device operates as expected under defined conditions independently, or as part of a system. Individuals in this role perform tests to see how a newly designed device will interact with another device from another vendor or developer. The individual also develops and executes test plans and conducts testing to ensure quality outputs are generated.

Qualification Pack Details:

QP NOS Reference	SSC/Q5001
QP NOS Name	Tester/Test
	Engineer-Hardware
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2523
Title	Computer Network Professionals

2523.0401

Design Engineer

Design Engineer performs complex assignments pertaining to the design, testing and assessment of mechanical and electrical devices and systems to assist in the production or packaging process. They also develop prototypes for testing; provide feasibility testing on new and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

current designs under modification. They help in functional reviews of product architecture to assure design integrity and compliance with company specifications and recognized industry design practices.

Qualification Pack Details:

QP NOS Reference	SSC/Q4201
QP NOS Name	Design Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2523
Title	Computer Network Professionals

2523.0501

Hardware Engineer

Hardware Engineer is responsible for design, development and testing of computer hardware. They oversee the installation of computer systems, chips and circuit boards as well as peripherals including keyboards, routers and printers.

Qualification Pack Details:

QP NOS Reference	SSC/Q4701
QP NOS Name	Hardware Engineer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2523
Title	Computer Network Professionals

2523.9900

Computer Network Professionals, Other

Computer Network Professionals, Other Covers computing professionals not classified elsewhere in Group 213, Computing Professionals.

ISCO 08 Unit Group Details:

Code	2523
Title	Computer Network Professionals

Family 2529

Database and Network Professionals, Not Elsewhere Classified

This unit group covers database and network professionals elsewhere in Minor group 252, Database and network professionals. For instance, the group includes information and communications technology security specialists.

Sub Division 26

Legal, Social and Cultural Professionals

Legal Professionals conduct research on legal problems, advise clients on legal aspects of problems, plead cases or conduct prosecutions in courts of law, preside over judicial proceedings in courts of law, and draft laws and regulations.

Tasks performed usually include: giving clients legal advice, undertaking legal business on clients' behalf, and conducting litigation when necessary, or presiding over judicial proceedings-and pronouncing judgement in courts of law. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

261	Legal Professionals
262	Librarians, Archivists and Curators
263	Social and Religious Professionals
264	Authors, Journalists and Linguists
265	Creative and Performing Artists

Group 261

Legal Professionals

Legal Professionals conduct research on legal problems, advise clients on legal aspects of problems, plead cases or conduct prosecutions in courts of law, preside over judicial proceedings in courts of law, and draft laws and regulations

Occupations in this Group are classified into the following Families:

2611	Lawyers
2612	Judges
2619	Legal Professionals, Not Elsewhere Classified

Family 2611 Lawyers

Lawyers give clients legal advice on a wide variety of subjects, draw up legal documents, represent clients before administrative boards or tribunals and plead cases or conduct prosecutions in courts of justice, or instruct barristers to plead in higher courts of justice.

2611.0100 Attorney General of India

Attorney General of India functions as highest legal adviser to Government of India and is consulted by Government of India on legal matters of highest importance involving such matters as interpretation of constitution and other

laws. Studies references made to him by Solicitor General of India bearing comments of Ministry of Law and relevant instruction of administrative Ministry. Considers legal aspects of issue and advises Government as necessary. Studies briefs referred to him and appears in Supreme Court on behalf of Government to conduct important cases, especially those involving interpretation of constitution or other laws. Attends Parliament or any of its Committees when matters involving legal aspects are under consideration. May advise President on constitutional issues. May address or otherwise take part in Parliament for clarifying legal issues. May appear in any court of India.

ISCO 08 Unit Group Details:

Code 2611
Title Lawyers

2611.0200

Solicitor General of India

Solicitor General of India advises Government of India on legal matters and submits statement of important cases to Attorney General of India for their opinion or appearance in Supreme Court as necessary. Studies cases referred to them along with comments of Ministry of Law and instructions of Administrative Ministry. Examines merit of case, legal issues involved, interpretation of constitution or other laws and advises Government accordingly. Prepares statements of cases and submits them to Attorney General for India for their opinion or for conducting case in Supreme Court as appropriate. Files appeal or affidavit in Supreme Court as necessary and assists Attorney General of India or Government lawyer in conducting case. May appear in Supreme Court on behalf

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

of Government for interpretation of constitution or other laws.

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.0300

Advocate General

Advocate General functions as Advocate of State Government and advises Government in legal matters referred to him including proposed legislation. Represents Government in suits and proceedings in original and appellate side of High Court. Appears on behalf of Government before High Court, Special Bench in Supreme Court or any other court as required. Advises Government on legal matters, and proposed legislation and performs other duties of legal character as may be assigned to him from time to time. Attends meetings of Legislature or Legislative Council and Committees thereof, as required. Gives opinion in matters referred to him by Legal Remembrancer, Government Advocate, Public Prosecutor and Heads of Secretariat Department. May advise Government Pleader in conducting criminal cases and act as leading counsel if directed by Government. May appear in private cases to which Government is not party.

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.0400

Legal Remembrancer

Legal Remembrancer advises State Government on legal matters, drafts bills

and interprets legislative enactments, statutes and rules. Gives opinion on legal matters raised by Government departments. Interprets statutes, drafts bill for legislation and performs such other duties of legal character as are assigned to him by State Government. May act as Secretary to Government in Law Department.

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.0500

Government Advocate

Government Advocate, High Court, Standing Counsel High Court conducts cases and pleads on behalf of Government in criminal appeals and civil cases in High Court and gives opinion on matters referred to him by Legal Remembrancer and Public Prosecutor. Appears and defends Government in appeal cases and other criminal matters heard on appellate side of High Court. Presents appeals on behalf of Government for prosecution in cases of acquittal or lightening of sentence. Appears in any criminal case heard on appellate side of High Court in which Government's proprietary interests are concerned and applies for adjournment to get full information from appropriate District Officers before case is finally heard. Appears in civil appeals and original cases filed in High Court on behalf of Government. Gives advice in legal matters to Government Pleaders of different districts under jurisdiction of High Court and gives opinion on matters referred to him by Legal Remembrancer. May appear on behalf of Government in Mofussil Courts. May do private legal practice where Government is not involved.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.0600

Public Prosecutor

Public Prosecutor; Government Pleader; District Government Counsel represents State in sessions cases and lends advice to officers in districts in all legal matters when called for. Studies records of cases sent to Sessions Court by Trial Magistrate and ensures against omission and irregularities, which might vitiate proceedings in court. Presents evidence, conducts cross-examination and argues case for prosecution. Appears and pleads on behalf of prosecution in all appeal cases, application for reduction of sentences etc. Advises Government Officers in district regarding any civil or criminal proceedings and matters concerning Government interests. Allots legal work to Assistant Public Prosecutors. May appear for Government in civil and revenue cases if designated as GOVERNMENT PLEADER. May advise Government to withdraw prosecution in appropriate cases.

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.0700

Police Prosecutor

Police Prosecutor; Assistant Public Prosecutor represents and conducts cases on behalf of Police Department in Magisterial Courts. Studies and examines charges prepared by investigating police

officer. Prepares briefs and introduces further any evidence obtained after charges are formulated by police. Examines probable witnesses. Attends Court and conducts prosecution on behalf of police. Guides testimony of prosecution witnesses and introduces exhibits in support of case. Conducts preliminary arguments for framing of charges. Cross-examines defence witnesses. Argues prosecution case. May be called upon to discharge executive duties to maintain law and order.

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.0800

Attorney at Law

Attorney at Law; Solicitor gives advice in legal matters, prepares case for Advocates for conducting it on behalf of client and files legal proceedings in court of law. Receives instructions from clients and obtains necessary details from them. Studies documents or papers involved in case. Interviews witnesses, gathers full information and prepares case. Files case in court. Secures writ of summons and obtains court order permitting him to inspect and examine relevant documents. Collects testimony of witnesses and prepares brief for hearing before Judge. Discusses case with Advocate concerned and submits brief to him. Advises Advocate, attends court and assists Advocate in presenting case before judge. May function as Notary Public if so appointed by Government. May appear in court on behalf of client.

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2611.0900

Advocate

Advocate; Pleader; Bar-at-law; Vakil gives advice on legal matters, files legal proceedings in court of law and pleads and acts on behalf of client in Court, income tax office, sales tax office, municipal office, tribunals, etc. on payment of fees. Studies facts and available documents pertaining to case and decides line of action. Advises client to procure evidence, further documents, etc. in support of case. Studies social customs and relevant acts, rules, rulings and precedents of courts of similar nature. Examines witnesses in chamber, gathers full information regarding case and prepares brief. Prepares and files plaint, complaint, written statement, affidavits, etc. on behalf of client, or defends accused in court of law. Examines and cross-examines witnesses of both sides in court and submits exhibits in support of their case. Advises party regarding course to be followed from time to time. Argues case for client. Performs conveyancing work such as preparing notices, bonds, wills, agreements, for clients.

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.1001

Intellectual Property Executive

IP Executive is responsible for drafting and maintaining licensing and commercial agreements to ensure protection of the company's intellectual property/patent.

Qualification Pack Details:

QP NOS Reference	SSC/Q6201
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QP NOS Name

IP Executive

NSQF Level

7

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.1002

Legal Associate

Legal Associate is responsible for reviewing and analysing large volumes of litigation documents and providing research support to corporate legal departments.

Qualification Pack Details:

QP NOS Reference	SSC/Q2902
QP NOS Name	Legal
Associate	
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers

2611.9900

Lawyers, Other

Lawyers, Other include lawyers not classified elsewhere.

ISCO 08 Unit Group Details:

Code	2611
Title	Lawyers
Family	2612

Judges

Judges preside over civil and criminal proceedings in courts of law.

2612.0100

Judge, Supreme Court

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Judge, Supreme Court sits on bench of Supreme court and decides cases in original and appellate jurisdiction of Supreme Court. Hears preliminary arguments for admitting cases. Obtains relevant records and judgement from High Court and issues notices to other party. Hears arguments of both parties and studies records and judgement of High Court. Discusses with other JUDGES on bench salient features of records, Judgement and arguments to arrive at decision. Delivers majority opinion of JUDGES on bench; while minority opinion is delivered later by dissident JUDGES separately. May consult with Attorney General of India particularly in constitutional cases. May allow persons to appear as amicus curiae (advisers to parties who act as consultants and suggest or state matter of law for assistance) to assist court in solving legal and constitutional points of national importance. Is designated as CHIEF JUSTICE, SUPREME COURT, if functions as head of judiciary in country and administers oath to President and Vice President of India. Renders judicial advice to President on constitutional matters referred to him by President and advises President on appointment of Supreme Court and High Court judges.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.0200

Judge, High Court

Judge, High Court; Puisne Judge presides over court and decides, sitting singly or in bench of two or more judges, original or appeal cases allotted to him by CHIEF JUSTICE, HIGH COURT. Delivers judgement and issues directions, orders or writs to parties concerned. Hears pleadings of

counsels of both sides and frames issues in dispute. Examines documents tendered by parties and admits relevant items as exhibits. Listens to arguments advanced by counsels of both sides and decides cases sitting singly or on bench of two or more judges in appeal cases. Examines records and judgement of lower court. Hears arguments of counsels, passes orders and delivers judgement. May discuss minor issues in chamber with counsels of both parties. Recommends to President appointments of PUISNE JUDGES, administers oath to them and to Governor on fresh appointment, constitutes benches for hearing cases, allots work to PUISNE JUDGES and advises Government regarding their appointments, transfers, promotions and other administrative matters of judiciary, if functions as head of judiciary in State and designated as CHIEF JUSTICE, HIGH COURT. May remand cases to lower court for retrial or refer matters for investigation if more facts are needed. May examine persons as court witnesses. May act as Administrative Judge and inspect lower courts such as session, civil and munsif courts.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.0300

District and Session Judge

District and Sessions Judge functions as administrative and judicial head of all civil and criminal courts other than magisterial court in their district(s) and decides civil and criminal cases. Tries original civil cases and criminal cases committed to their court by magisterial courts. Listens to arguments of counsels of both sides, examines documents and formulates

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

charges. Explains charges to accused in criminal cases and issues to litigants in civil cases. Records evidence of witnesses and admits documents as exhibits. Listens to arguments of counsels and delivers judgement. Hears appeals against judgement of lower courts, examines records and judgements, listens to arguments of counsels and delivers judgement. Attends to administrative matters and inspects subordinate courts as head of judiciary in district. May transfer cases from one court to another. May grant bail to accused in criminal cases. May allocate sessions cases between their court and civil and sessions court.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.0400

Munsif

Munsif tries and delivers judgement on civil cases of their sub-division filed in court. Hears preliminary arguments and examines documents in support of complaint. Issues notices to other parties for filing written statements supported by affidavits. Frames issues, records evidence and admits relevant documents as exhibits. Records evidence of plaintiff, defendant and their witnesses, listens to arguments of counsels of both sides and delivers judgement. May try criminal cases while under training.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.0500

Judge, Sub-ordinate Court

Judge, Subordinate Court tries and delivers judgement on cases filed in court. Hears preliminary arguments and records statement of plaintiff to determine if *prima facie* case is made. Causes notices against other party to file replies duly supported by affidavits. Frames issues, proceeds with trial, records evidence of plaintiff and defendants' witnesses and admits relevant documents as exhibits. Listens to arguments of both sides and delivers judgement. May examine persons as court witnesses. Is designated as CIVIL JUDGE or SUB-JUDGE if tries only civil cases. Is designated as CIVIL AND SESSIONS JUDGE if vested with sessions power to try criminal cases. Is designated as SPECIAL JUDGE if presides over special courts.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.0600

Magistrate

Magistrate presides over criminal court, decides cases and delivers judgement on judicial matters filed in or transferred to the court. Records statement of complainant to decide cognisance of *prima-facie* case. Issues summons or warrants to accused according to nature of alleged crime and grants remand to police to keep accused in police custody for investigation. Fixes dates of hearing. Issues summons to prosecution and defence witnesses, Records evidence of witnesses under oath, examines their statements given before police and admits documents or material as exhibits. Hears preliminary arguments of prosecution and defence counsels to decide as to whether any case has been made out against

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

accused. Commits accused to stand trial in sessions court if offence is beyond competence of the court, or dismisses complainant if no case is made by prosecution. Proceeds with case if alleged offence is made out and within competence of court. Formulates charges and explains them to accused. Records defence testimony of accused, evidence and cross examination of prosecution and dis-allows irrelevant questions. Hears arguments of counsels of both sides, evaluates evidence and delivers judgement. May inspect site of alleged offence. May call persons as court witnesses. May grant bail to accused at any stage of trial and exempt accused from personal appearance. May promulgate executive orders for maintenance of law and order. May do patrol duties with police. May order firing in serious disturbances. May be official witness at hangings in jail. May conduct identification proceedings in jail. Is designated as DISTRICT MAGISTRATE, CHIEF PRESIDENCY MAGISTRATE, JUDICIAL MAGISTRATE, CITY MAGISTRATE, according to authority vested in him. Is designated as RAILWAY MAGISTRATE if engaged in trying offences committed by ticketless travellers.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.0700

Magistrate, Juvenile Court

Magistrate Juvenile Court presides over Juvenile Court and gives findings and observations on offences committed by juveniles. Presides over court and studies complaint made by police. Commits delinquents to custody of Probation Officer and orders investigation of charges

made. Studies report of Probation Officer and examines witnesses to find circumstances under which crime was committed and decides whether accused should be sent to Probation School or After Care Association or released in custody of guardians or receive medical treatment. Tries to maintain relaxed friendly atmosphere in court.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.0800

Chairman, Administrative Tribunal

Chairman Administrative Tribunal functions as administrative head of Administrative Tribunal and adjudicates disputes referred to it under various laws relating to service conditions, promotions, seniority, pay anomalies, administrative disputes etc. Presides over Tribunal and examines cases referred to it. Listens to arguments advanced by parties or their Advocates and notes important points. Records oral evidence and admit as exhibits documents tendered by parties. Evaluates all factors, makes decision and submit it to Government for implementation.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.0900

Member, Administrative Tribunal

Member, Administrative Tribunal gives decision in administrative disputes referred to the court under various service rules and Acts. Listens to arguments advanced by parties or their Advocates and notes important points. Records oral

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

evidence and admits as exhibits documents tendered by parties. Visits place of work or establishment if necessary for studying occupations, processes and working conditions. Gives decision in disputes after considering all material on record.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.1000

President, Industrial Tribunal

President, Industrial Tribunal; Presiding Officer Industrial Tribunal; functions as administrative head of Industrial Court, Labour Court or Industrial Tribunal and adjudicates disputes referred to it under various laws such as Industrial Relations Act and Industrial Disputes Act. Presides over Court or Tribunal and examines cases referred to it. Listens to arguments advanced by parties or their Advocates and notes important points. Records oral evidence and admits as exhibits documents tendered by parties. Evaluates all factors, makes decision and submits it to Government for implementation. Adjudicates disputes in appeal arising from decision given by Labour Court or subordinate authorities as provided under Act. Constitutes Benches where necessary. Exercises administrative control over Labour Court and subordinate offices. May visit place of work or establishment to study process of work, working conditions or cause of dispute.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.1100

Member, Industrial Tribunal

Member, Industrial Tribunal gives decision in industrial disputes referred to the court under Industrial Relations Act and Industrial Disputes Act. Listens to arguments advanced by parties or their Advocates and notes important points. Records oral evidence and admits as exhibits documents tendered by parties. Visits place of work or establishment if necessary for studying processes and working conditions. Gives decision in disputes after considering all material on record. Functions as ADJUDICATOR (Industrial Tribunal) under Industrial Disputes Act and decides disputes referred to him under Act in some manner. Hears and decides matters or disputes in appeal including criminal charges arising from decisions given by Labour Court or subordinate authorities as provided under Act.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.1200

President, Consumer Redressal Forum

President, Consumer Redressal Forum responsible for enabling consumer to secure speedy and inexpensive redressal of grievances, disputes and protecting large body of consumers from exploitation. Adjudicates consumer disputes referred to it under the consumer protection Act. Presides over Consumer Court and examines cases referred to it. Listens to arguments advanced by parties or their Advocates and notes important points. Records oral evidence and admits as exhibits documents tendered by parties. Evaluates

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

all factors and makes decision in providing Redressal to consumer grievances in the matter of transport, telephones, electricity, constructions, banking, insurance, medical treatment etc.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.1300

Member, Consumer Redressal Forum

Member, Consumer Redressal Forum gives decision in consumer disputes referred to the court under Consumer Protection Act. Listens to arguments advanced by parties or their Advocates and notes important points. Records oral evidence and admit as exhibits documents tendered by parties. Visits place of work or establishment if necessary for studying consumer products, services and consultancy processes/conditions. Gives decision in disputes after considering all material on record. Functions as quasi-judicial machinery under Consumer Protection Act and decides disputes referred to him under the Act in same manner. Hears and decides matters or disputes in the matter of transport, telephones, electricity, constructions, banking, insurance, medical treatment etc.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

2612.9900

Judges and Magistrates, Other

Judges and Magistrates, Other includes all other judges and magistrates not classified elsewhere.

ISCO 08 Unit Group Details:

Code	2612
Title	Judges

Family 2619

Legal Professionals, Not Elsewhere Classified

This unit group covers legal professionals not classified elsewhere in Minor group 261, Legal professionals. For instance, the group includes those who perform legal functions other than pleading or prosecuting cases or presiding over judicial proceedings.

2619.0100

Prothonotary and Senior Master

Prothonotary and Senior Master; Registrar (Original Side High Court) controls all offices of Original side of High Court. Ensures proper filing of cases and appeals from Original side of High Court, scrutinises applications such as consent orders for adjournment, issue of writs, issue of certified copies etc. Exercises judicial powers delegated to him/her, such as issuing interlocutory orders in suit matters, entertaining of application under Company Law, issuing Pauper-Petitions, appointing of guardian ad-litem of minors and lunatics, settling index of Appeal Paper Books, acceding of plaints, and executes other functions assigned to him by Chief Justice and other Judges. Attends to important general correspondence of office and allot work to subordinates and ensures that they are properly executed. May look after accounts matters, sealing and keeping of records of original side of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

High Court, Examination of title of properties before sale, submission of report to court etc.

ISCO 08 Unit Group Details:

Code 2619

Title Legal Professionals, n.e.c.

2619.0200

Registrar (Appellate Side, High Court)

Registrar (Appellate Side, High Court) functions as head and controlling officer of Appellate Side of High Court. Attends to all administrative matters pertaining to subordinate courts and to correspondence with Government, other High Courts and district and subordinate courts. Recommends postings of District, Sessions and Assistant Judges to Government as directed by Chief justice. Exercise quasi-judicial powers in respect of admission of appeals, granting time for filing of process fee, written process, deficit court fee, printing cost and making cases ready for hearing by bench. Attends to enrolment and disciplinary matters regarding Advocates and District Pleaders. Controls expenditure and acts as custodian of moneys deposited. Audits monthly returns received from district and subordinate courts. Supervises compilation of administrative report of Civil and Criminal Justice and High Court publications. Allots various court work to subordinates and ensures their proper execution.

ISCO 08 Unit Group Details:

Code 2619

Title Legal Professionals, n.e.c.

2619.0300

Registrar

Registrar; Clerk of the Court; Clerk of the State assists Chief or Principal Judge in all administrative matters relating to court and functions as head of office of court. Reviews plaints, petitions, appeals, etc. received from parties and ensures that they are in proper order (that is court fee is properly levied, necessary documents are attached, appeal is competent and within time limit, etc.). Places papers before Chief Judge and admits them to file on his orders. Issues notices, summons, etc. to parties concerned and ensures that relevant papers are filed and gets Paper-Book prepared. Allots cases to Judges in consultation with Chief Judge and prepares advance schedule of cases. Examines drafts of decrees and orders passed by Court and ensures their correctness. Issues certified copies of judgement to Lower Courts and to High Courts in cases of appeals. Accepts affidavits, declarations, etc. Allots work to Deputy Registrars or Assistant Registrars and ensures proper execution of work. Answers correspondence addressed to court and keeps control over establishment and accounts of court. May also exercise certain judicial powers delegated to him such as granting of adjournment, deciding judicially certain matter, etc.

ISCO 08 Unit Group Details:

Code 2619

Title Legal Professionals, n.e.c.

2619.0400

Master Official Referee and Registrar in Equity and Commissioner for taking Accounts (High Court)

Master Official Referee and Registrar in Equity and Commissioner for taking

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Accounts (High Court) decides matters judicially, relating to accounts in administration suits, mortgage suits, breach of contract matters, etc. referred to him by Judges sitting on Original Side of High Court. Examines accounts in administration suits and determines shares of parties. Settles particulars and conditions of sale of immovable property and conducts auction sale of property in mortgage suits. Determines amount of damage to be paid, etc. in breach of contract cases and submits report of findings to court when directed. May scrutinise accounts filed by guardians of minors and lunatics and Court Receiver, and Liquidator. May receive and record evidence if necessary and give decisions on points in dispute. May conduct proceedings either in general way or as specified in court order.

ISCO 08 Unit Group Details:

Code 2619

Title Legal Professionals, n.e.c.

2619.0500

Taxing Master

Taxing Master (High Court) taxes parties, according to law, costs of Attorneys or costs ordered by court. Receives statements of cost from party and the Attorney or from winning party and losing party or bills payable to parties concerned from fund of particular estate or trust. Scrutinises bills and taxes according to set table of fees prescribed by rules of High Court on Original Side; and uses their discretion as regards item of fees payable to Attorney or Solicitor according to labour involved. Decides disputes regarding valuation of suits for purpose of court fees Hears Attorneys and gives decision in disputed cases of taxation.

May suggest amount for which bill tendered should be settled.

ISCO 08 Unit Group Details:

Code 2619

Title Legal Professionals, n.e.c.

2619.0600

Insolvency Registrar

Insolvency Registrar: Insolvency Judge (High Court) functions as principal ministerial officer of Insolvency Court which sits in High Court on specified days for deciding matters relating to insolvents. Holds public examination of insolvents. Draws up orders of court and ensures that notice relating to them are published in High Court Gazette and newspapers. Prepares schedule of cases to be heard and attends each session of court. Entertains applications and issues insolvency notices after proper scrutiny. Exercises limited judicial functions delegated to him by Insolvency Court, such as adjudicating the debtor declaring insolvency on the application and holding public examination, etc.

ISCO 08 Unit Group Details:

Code 2619

Title Legal Professionals, n.e.c.

2619.0700

Official Assignee (High Court)

Official Assignee (High Court) takes charge of insolvent estate and administers it under direction of court. Investigates affairs and conduct of insolvent in private examination and thereafter in public examination before insolvency Judge and submits report to court. Tries to convert insolvent's estate into as much money as possible and distributes it among various

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

creditors according to law. Receives, scrutinises and admits or rejects claims of creditors as appropriate. Receives and scrutinises any scheme of settlement suggested by the insolvent, discusses it amongst creditors and reports their opinion to court.

ISCO 08 Unit Group Details:

Code 2619
Title Legal Professionals, n.e.c.

2619.0800

Court Receiver and Liquidator

Court Receiver and Liquidator: takes charge, administers and safeguards property in dispute and liquidates assets of company in liquidation for meeting claims of creditors. Collects rent, makes repairs, pays out taxes and conducts disbursements in respect of property placed under his charge by order of Court. Effects sale of property to execute court decrees or orders. Takes charge of estate of company in liquidation and investigates into its affairs. Receives and scrutinises claims of creditors as well as shareholders and submits his report to Court with recommendations. Converts estate into money under orders of court and distributes money realised amongst creditors according to law. Submits accounts of money realised through sale of estates to court for scrutiny and obtains formal orders of court for winding up company.

ISCO 08 Unit Group Details:

Code 2619
Title Legal Professionals, n.e.c.

2619.0900

Sheriff

Sheriff functions as honorary officer of State in big cities or towns for maintaining peace, administering justice under direction of courts and executing writs and other processes of court. Reads proclamation based on Government orders in important public places. Meets high officials of State to convey public opinion to them and public area. Entertains officially and convenes public meetings on request from citizens. Ensures proper serving executing and returning of all processes issued by High Court and maintenance of peace in courtrooms of High Court. Receives money during execution proceedings and makes payment pursuant to orders of Court. Is designated as DEPUTY SHERIFF if given power of attorney and functions on behalf of SHERIFF. Is designated as MARSHALL OF PRIZE COURT if engaged in execution of all processes of Prize Court, usually performed during war such as seizure of enemy ships, arrest of persons engaged in subversive acts etc.

ISCO 08 Unit Group Details:

Code 2619
Title Legal Professionals, n.e.c.

2619.1000

Coroner

Coroner presides over Coroner's Court and holds inquest on bodies of persons alleged to have died by violence or accident. Hears testimony of doctor and any witnesses who may have been present at time of death. Examines relevant evidence and decides probable cause of death. Gives permission to dispose of dead body. Authorises police to arrange post-mortem examination in civil hospital in suspected cases. Sends records of findings to appropriate authorities for further investigation and trial if necessary.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

May visit site of occurrence to ascertain facts.

for the safekeeping of records and historically valuable documents.

ISCO 08 Unit Group Details:

Code 2619

Title Legal Professionals, n.e.c.

2619.9900

Legal Professionals, Other

Legal Professionals, Other includes all other legal professionals not classified elsewhere.

ISCO 08 Unit Group Details:

Code 2619

Title Legal Professionals, n.e.c.

Group 262

Librarians, Archivists and Curators

Librarians, Archivists and Curators develop and maintain the collections of archives, libraries, museums, art galleries, and similar establishments.

Occupations in this Group are classified into the following Families:

2621 Archivists and Curators

2622 Librarians and Related Information Professionals

Family 2621

Archivists and Curators

Archivists and Curators collect, appraise and ensure the safekeeping and preservation of the contents of archives, artefacts and records of historical, cultural, administrative and artistic interest, and of art and other objects. They plan, devise and implement systems

2621.0100

Archivist

Archivist acquires, maintains and supplies for reference manuscripts and supplies records of historical importance. Scrutinises public records and documents transferred to archives, according to historical significance, and enduring value. Recommends weeding unimportant material and analyses and prepares brief descriptions of contents of records and documents. Arranges them in chronological order department wise and prepares indices, guides, bibliographies and microfilm copies or documents as reference media. Acquires on payment or otherwise, documents of archival importance from private sources. Safeguards and preserves records, adopting modern means such as fumigation, lamination, air cleaning, microfilming etc. Acts as consultant to government agencies, academic institutions, research scholars by making available information and documents and locating reference materials obtainable elsewhere. Prepares compendia on selected subjects relating to public administration for use of administration.

ISCO 08 Unit Group Details:

Code 2621

Title Archivists and Curators

2621.0200

Curator (Museum)

Curator; (Museum), collects, prepares and preserves objects or materials of historical, biological, geological, archaeological and antique importance and displays them for public view in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

museums or exhibition halls. Undertakes extensive tours of country and collects rare objects and materials of historical importance. Classifies collections under appropriate heads according; to genus, family and species (if animals) or to periods (if monuments). Prepares or gets prepared material for proper and effective display. Labels specimens or objects with proper descriptions. Preserves specimens in special media like Lysol, Formalin, etc. Displays objects in various exhibition hall of museum to give better effect. Conducts or carries out research to trace history of objects. Publishes research reports relating to museum collection for use by scholars. Provides facilities to research workers in identification and classification of objects. May conduct visitors to museum and explain to them history of articles, etc.

ISCO 08 Unit Group Details:

Code 2621
Title Archivists and Curators

2621.0300

Restorer, Painting

Restorer Painting; restores damaged and faded paintings and preserves paintings, using techniques based on knowledge of art and art materials: Examines surfaces of painting, using magnifying device, and performs tests to determine factors, such as age, structure, pigment stability, and probable reaction to various cleaning agents and solvents. Removes painting from frame. Applies select solvents and cleaning agents and uses predetermined method to clean surface of painting and remove accretions, discolorations, and deteriorated varnish. Stretches new linen backing, applies paste material to back of painting, and laminates parts together, using laminating press. Dries laminated

painting under controlled conditions to prevent shrinkage. Applies beeswax or other substance to damaged or faded areas where restoration is needed. Studies style, techniques, colours, textures, and materials used by artist to maintain consistency in reconstruction or retouching procedures. Reconstructs or retouches damaged areas and blends area into adjacent areas to restore painting to original condition. Applies varnish or other preservative to surface of painting and dries under controlled conditions. May remove paint layer from backing and remount on canvas, wood, or metal support using pressure and special adhesives. May apply neutral colour powder to damaged areas for restoration.

ISCO 08 Unit Group Details:

Code 2621
Title Archivists and Curators

2621.0400

Restorer, Lace and Textile

Restorer, Lace and Textiles restores and prepares ancient textile and lace materials for display in textile museum: Cleans fabric, using cleaning compounds and techniques based on historical knowledge of fabric manufacture and effect of cleaning upon fabric. Develops new cleaning compounds and methods when available means are inadequate or tend to harm fabric. Repairs and reweaves worn, torn, and decayed fabrics, using techniques based on knowledge of weaving and lace methods. Mounts fabric in frame or suitable background.

ISCO 08 Unit Group Details:

Code 2621
Title Archivists and Curators

2621.0500

Restorer, Ceramics

Restorer, Ceramic Cleans, preserves, restores, and repairs objects made of glass, porcelain, china, fired clay, and other ceramic materials: Coats excavated objects with surface-active agents to loosen adhering mud or clay and washes objects with clear water. Places cleaned objects in dilute hydrochloric acid or other solution to remove remaining deposits of lime or chalk, basing choice of solution on knowledge of physical and chemical structure of objects and destructive qualities of solvents. Cleans glass, porcelain, or similar objects by such methods as soaking objects in lukewarm water with ammonia added, wiping gilded or enamelled objects with solvent-saturated swab, or rubbing objects with paste cleanser. Rubs objects with jewellers' rouge or other mild cleanser, soaks objects in distilled water with bleach or solvent added, or applies paste or liquid solvent, such as magnesium silicate or acetone, basing choice of method and material on age, condition, and chemical structure of objects, to remove stains from objects. Recommends preservation measures, such as control of temperature, humidity, and exposure to light, to curatorial and building maintenance staff to prevent damage to or deterioration of object. Impregnates surfaces with diluted synthetic lacquers to reduce porosity of material to increase durability of ancient earthenware. Restores or simulates original appearance of objects by such methods as polishing surfaces to restore translucency, removing crackled glaze and applying soluble synthetic coating, grinding or cutting out chipped edges and re-polishing surfaces, or applying matt paints, gold leaf, or other coating to object, basing methods and materials used on knowledge of original

craft and condition of objects. Repairs broken objects, employing such techniques as bonding edges together with adhesive, inserting dowel pins in sections and cementing together, or affixing adhesive coated strips to inner portions of broken objects. Replaces missing sections of objects by constructing wire frames of missing sections, shaping plasticine or other materials over frames, affixing modelled sections to objects with dowels or adhesive, and painting attached sections to reproduce original appearance. Constructs replicas of archaeological artefacts or historically significant ceramic ware, basing construction design on size, curvature, and thickness of excavated shards or pieces of objects available and knowledge of techniques and designs characteristic of period.

ISCO 08 Unit Group Details:

Code	2621
Title	Archivists and Curators

2621.0600

Restorer, Paper and Prints

Restorer, Paper-and-Prints cleans, preserves, restores, and repairs books, documents, maps, prints, photographs, and other paper objects of historic or artistic significance: Examines or tests objects to determine physical condition and chemical structure of paper, ink, paint, or other coating, in order to identify problem and plan safest and most effective method of treating material. Cleans objects by such methods as sprinkling crumbled art gum or draft powder over surface and rotating soft cloth over cleaning agent to absorb soil (dry cleaning), immersing objects in circulating bath of water or mild chemical solution (wet cleaning), or applying

solvent to remove rust, fly specks, mildew, or other stains, basing choice of method on knowledge of physical and chemical structure of objects and effects of various kinds of treatment. Preserves or directs preservation of objects by such methods as immersing paper in de-acidification baths to remove acidity from papers and ink to prevent deterioration, sealing documents or other papers in cellulose cases and passing sealed objects through heated rollers to laminate them, spraying objects, storage containers, or areas with fungicides, insecticides, or pesticides, and controlling temperature, humidity, and exposure to natural or artificial light in areas where objects are displayed or stored. Restores objects to original appearance by such methods as immersing papers in mild bleach solution to brighten faded backgrounds, removing old varnish from such art works as engravings and mezzotints, or strengthening papers by resizing in a bath of gelatine solution. Repairs objects by such methods as mending tears with adhesive and tissue, patching and filling worm holes, torn corners, or large tears by chamfering, inserting, affixing, and staining paper of similar weight and weave to simulate original appearance, or retouching stained, faded, or blurred watercolours, prints, or documents, using colours and strokes to reproduce those of original artist or writer.

ISCO 08 Unit Group Details:

Code	2621
Title	Archivists and Curators

2621.0700

Restorer, Furniture

Restorer, Furniture restores and preserves historical furniture in collection of museum or similar institution, using

variety of hand tools and power tools and applying knowledge of antique fabrics and wood furniture: Examines furnishings to determine type of material, extent of deterioration or damage, or date of construction to verify authenticity and plan restoration. Sets up and operates variety of woodworking machines to fabricate, repair, reinforce, and replace parts of furniture. Cuts, shapes, and attaches parts according to blueprints or drawings, using hand tools. Matches materials for colour, grain, and texture. Strips old finish from furnishings, using solvents and abrasives. Fills cracks, depressions, and other blemishes, using plastic wood or lacquer stick. Treats warped or stained surfaces to restore original contour and colour. Glues or replaces veneer sections. Smooths surfaces, using power sander or abrasive material. Washes or bleaches furniture surfaces to prepare surface for application of finish. Selects coatings, such as stain, lacquer, or varnish according to type wood, and brushes or sprays material onto surface to protect surface and produce desired appearance. Polishes, sprays, or waxes finished pieces. Removes damaged or deteriorated coverings from upholstered furniture. Repairs, reinforces, or replaces components, such as springs, webbing, and padding. Selects fabric for new covering, using knowledge of period and style of furniture or following instructions of CURATOR (museums). Tacks, sews, glues, or staples covering to furniture frame to attach upholstery. Refurbishes leather coverings of furnishings, using softeners, solvents, adhesives, stains, or polishes. Replaces damaged coverings with leather pieces of appropriate colour, grain, and weight. Stencils, gilds, emboss, or paint designs or borders on restored pieces to reproduce original appearance. May advise curatorial

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

staff on environmental conditions necessary for preservation of furnishings in exhibit and storage areas. May fabricate replicas of period furniture for use in exhibits.

ISCO 08 Unit Group Details:

Code 2621
Title Archivists and Curators

2621.9900

Archivists and Curators, Other

Archivists and Curators, other include all other Archivists and Curators engaged in preserving and maintaining books, manuscripts, magazines, fossils, old seals and objects of historical, scientific and literary importance, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2621
Title Archivists and Curators

Family 2622

Librarians and Related Information Professionals

Librarians and Related Information Professionals collect, select, develop, organize and maintain library collections and other information repositories, organize and control other library services and provide information for users.

2622.0100

Librarian

Librarian organizes and maintains systematic collection of books, periodicals and other printed matter in library and issues them to readers. Selects publications to be purchased and receives

priced or complimentary copies of books, periodicals and other publications from authors or publishers. Classifies or supervises classification, indexing, cataloguing, shelving of books and other publications and maintains records of stock and issues. Guides readers in selecting books or in finding information required by them. Issues publications to readers. Examines books periodically for damage, if any, and decides which books are to be repaired or re-bound. Gives information from library sources on subjects of general or special interest to individuals or groups. Maintains liaison with other libraries and library associations. May make abstracts and summaries of important articles from incoming periodicals. May determine library policy. May look after the organization and administration of academic, public and research libraries.

ISCO 08 Unit Group Details:

Code 2622
Title Librarians and Related Information Professionals

2622.0200

Librarian (Film)

Librarian (Film) organizes and maintains collection of processed motion pictures for future use or reference. Receives films both 55 mm and 16 mm positive and negative as well as master positive, reference prints, library prints, etc. Prepares complete catalogue index and stores mms by tide or scene reference. Selects and issues films as per requisitions received from various departments such as editing, sound, direction, etc. Makes arrangement for loaning of films to private parties. Attends to queries received for purchase of stock shots and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

stock sound effects. May cut and assemble portions of positive films.

ISCO 08 Unit Group Details:

Code 2622

Title Librarians and Related Information Professionals

2622.0300

Tape Librarian/Librarian Digital/Librarian Media

Tape Librarian Maintains data on computer storage media such as magnetic tapes, floppies, discs, cartridge tapes, video discs, microfilms, maintains indexed cards, catalogues of the above stored data, issues the data devise to users; keeps accounts of issues and receipts of data devices; weeds out obsolete data as per instructions given by data owners/controlling officers; ensures required storing conditions and reports deficiencies to controlling officer; indents for gadgets and fixtures for maintaining the data devices. May be designated as Librarian, Tape; Media, Librarian.

ISCO 08 Unit Group Details:

Code 2622

Title Librarians and Related Information Professionals

2622.0500

News Librarian

News Librarian manages information resources library stored in files, on tape or microfilm, or in computers for use by news and editorial staff in publishing establishments, such as newspaper and magazine publishers, and in broadcasting establishments, such as radio and television stations: Directs activities of workers engaged in clipping, classifying,

cataloguing, indexing, storing, editing, and retrieving library information, or performs these activities as needed. Researches, retrieves, and disseminates information in resource library or commercial databases in response to requests from news or editorial staff, using knowledge of classification system or computer database. Maintains records and statistics on use of databases and information services provided. May manage in-house database of news information, assign classification terms to news articles, input news articles into database, and research news information in in-house database. May develop databases for data storage and retrieval, according to needs of news staff. May hire, train, schedule, and evaluate library staff. May prepare library budgets. May promote and market library products and services to public. May co-ordinate activities of library with activities of other departments. May select and purchase reference books for library collection. May manage graphics library, assign classification terms to graphics, and research graphics.

ISCO 08 Unit Group Details:

Code 2622

Title Librarians and Related Information Professionals

2622.0601

Document Coder/Processor

Document Coder/Processor is responsible for cataloguing or indexing legal documents so as to be easily retrieved, sorted, reviewed or prioritized.

Qualification Pack Details:

QP NOS Reference SSC/Q2901

QP NOS Name Document
Coder/Processor

NSQF Level 7

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2622
Title Librarians and Related Information Professionals

2622.9900

Librarians and Related Information Professionals, Other

Librarians and Related Information Professionals, Other include all other Librarians engaged in cataloguing, preserving and maintaining books, manuscripts, magazines, of historical, scientific and literary importance, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2622
Title Librarians and Related Information Professionals

Group 263

Social and Religious Professionals

Social and Religious Professionals conduct research, improve or develop concepts, theories and operational methods, or apply knowledge relating to philosophy, politics, economics, sociology, anthropology, history, philology, languages, psychology, and other social sciences, or they provide social services to meet the needs of individuals and families in a community.

Occupations in this Group are classified into the following Families:

2631 Economists
2632 Sociologists, Anthropologists and Related Professionals
2633 Philosophers, Historians and Political Scientists
2634 Psychologists

2635 Social Work and Counselling Professionals
2636 Religious Professionals

Family 2631

Economists

Economists conduct research, monitor data, analyse information and prepare reports and plans to resolve economic and business problems and develop models to analyse, explain and forecast economic behaviour and patterns. They provide advice to business, interest groups and governments to formulate solutions to present or projected economic and business problems.

2631.0100

Economist

Economist makes studies, conducts research, prepares reports and formulates plans designed to aid in solution of economic problems arising from production and distribution of goods and services. Studies whole process through which man makes living and satisfies his wants for products, shelter, service or amusement and conditions favouring or hampering economic development. Devices methods for collection and analysis of economic and statistical data and compiles and interprets such data. Prepares reports and formulates plans based on studies in economic field and Interprets and analysed data. Advises and consults private industrial concerns or government agencies on matters such as operating efficiency, marketing methods and fiscal problems. May specialize in any branch of economics, such as agricultural, financial or industrial, international trade, labour or prices, or in taxation or market research and be designated accordingly.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	2631
Title	Economists

2631.0200

Energy Economist

Energy Economist undertakes policy research and formulates policies and programmes for efficient use of energy and its conservation, strengthens energy auditing/energy management capabilities in the country. Assists in implementation of energy efficiency programmes, benchmarks energy consumption in industry, power generation, transmission and distribution, promotes energy efficient technologies, designs and implements Standard and Labelling programmes for appliances. Assists in preparation of Energy Conservation Building Codes and co-ordinates with State Authorities in implementation. Promotes awareness and implements programmes for school children, develops performance contract and promotes Energy Service Companies. Develops innovative financial mechanism for adoption of energy efficiency in industries and commercial organizations.

ISCO 08 Unit Group Details:

Code	2631
Title	Economists

2631.0300

Home Economist

Home Economist organizes and conducts consumer education service or research programme for equipment, food, textile, or utility companies, utilising principles of home economics: Advises homemakers in selection and utilisation of household equipment, food, and clothing, and

interprets homemakers' needs to manufacturers of household products. Writes advertising copy and articles of interest to homemakers, tests recipes, equipment, and new household products, conducts radio and television homemakers' programmes, and performs other public relations and promotion work for business firms, newspapers, magazines, and radio and television stations. Advises individuals and families on home management practices, such as budget planning, meal preparation, and energy conservation. Teaches improved homemaking practices to homemakers and youths through educational programmes, demonstrations, discussions, and home visits. May engage in research in government, private industry, and colleges and universities to explore family relations or child development, develops new products for home, discovers facts on food nutrition, and tests serviceability of new materials. May specialize in a specific area of home economics.

ISCO 08 Unit Group Details:

Code	2631
Title	Economists

2631.9900

Economists, Other

Economists, other include those economists engaged in research on economic problems not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2631
Title	Economists

Family 2632

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Sociologists, Anthropologists and Related Professionals

Sociologists, Anthropologists and Related Professionals investigate and describe the structure of societies, the origin and evolution of societies, and the interdependence between environmental conditions and human activities. They provide advice on the practical application of their findings in the formulation of economic and social policies.

2632.0100 Sociologist, General

Sociologist, General investigates origin and development of community life and social relationships of groups of human beings. Studies origin and development and relationship of groups of human beings. Collects or supervises collection and tabulation of data relating to development of community organizations, social customs, etc. Processes and interprets data for use by administrators, law makers, educators and other individuals and organizations engaged in solving social problems. Studies urban problems such as unemployment, begging, suicide and collects data, assesses trend and attitude of society and observes social change in time and space. May specialize in any branch of sociology such as Social Pathology, Industrial Sociology, Tribal Welfare and Administration, Educational sociology, etc. and may be designated accordingly.

ISCO 08 Unit Group Details:

Code 2632
Title Sociologists,
Anthropologists and
Related Professionals

2632.0200 Social Ecologist

Social Ecologist investigates effects of environments on distribution and activities of individuals and groups. Studies symbolic behaviour and social behaviour, interdependence of organism and environment leading to adjustments. Studies effects of environment on urban and rural growth, distribution, mobility and activities of individuals and groups. Assesses changes caused by various environment and evolves means for proper adjustment.

ISCO 08 Unit Group Details:

Code 2632
Title Sociologists,
Anthropologists and
Related Professionals

2632.0300 Clinical Sociologist

Clinical Sociologist develops and implements corrective procedures to alleviate group dysfunctions: Confers with individuals and groups to determine nature of group dysfunction. Observes group interaction and interviews group members to identify problems related to factors such as group organization, authority relationships, and role conflicts. Develops approaches to solution of group's problems, based on findings and incorporating sociological research and study in related disciplines. Develops intervention procedures, utilising techniques such as interviews, consultations, role-playing, and participant observation of group interaction, to facilitate resolution of group problems. Monitors group interaction and role affiliations to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

evaluate progress and to determine need for additional change.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.0400

Demographer

Demographer collects and analyses vital statistics related to population changes, such as births, marriages and mortality, and forecasts trends of increase or decrease in population. Analyses data on mortality, fertility, and migration of human population to study their level and trends. Evolves techniques of measuring population phenomena and evaluates their application. Studies customs, modes of living, nuptial procedures, fertility rates, birth control and public health measures, affecting demographic phenomena. Constructs life tables and studies economic and social characteristics of population in prescribed area. Writes reports on results of studies and maintains familiarity with other studies to improve techniques of analysis, refine concepts used, and methods of population analysis.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.0500

Criminologists

Criminologist investigates origin, nature and causes of crimes and suggests

methods of prevention. Studies social conditions and statistics of crime and traces origin, nature and causes of crime. Collects data and statistics about various types of conducts which constitute crime. Correlates crime prevalent in particular community under particular social conditions with actual crime committed. Views problems with socio-legal angle and suggest measures to prevent crimes through effective and modern penal mechanism. Evolves institution in society for preventing individuals from indulging in criminal behaviour.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.0600

Penologist

Penologist investigates and studies punishment of various crimes, discipline and management of penal institutions and rehabilitation of criminal offenders. Studies theory and objectives of punishment and criminality as suggested by Criminologist. Assigns different punishments for various crimes according to their nature and intensity, appropriate to crime and criminal. Individuals' punishment with corrective treatment of criminals through proper prison management, maintenance of Juvenile institutions and settlement for habitual offenders. Enforces punishment with reformatory and rehabilitative ideals, devising preventive measures.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.0700

Anthropologist, General

Anthropologist, General investigates evolution of human race by studying development of physical characteristics, religious and cultural practices, etc. at different periods of time. Identifies cultural periods with date in history by studying remains of culture recorded on stones, pottery, bones, etc. Undertakes excavations or exploration of pre-historic sites; preserves, reconstructs and classifies museum objects of cultural, physical, technological aid aesthetic life of man, and arranges for their proper display and exhibition. Studies biological aspects of man within broad racial groups, traces genetic identity, similarities of physical characteristics amenable to accurate measurement and correlation between pathological phenomena and bodily form. Determines inter-relationship of psychological reactions to stresses of natural and social environment. Studies formation of language and discusses historical events, reflected in process and identifies independent stems in vocabulary of various languages to trace links between languages and cultures. Studies forms of social organizations and institutions like family and state, traces their development and conducts comparative studies to infer relationship between social requirements and institutional structures. Plans, organizes and conducts sample surveys and case studies where necessary for collection of relevant data and utilises data collected to identify various characteristics of community and culture. Evaluates cause; and form of resistance to external change within community. May utilise data for application in solution of social problems involving change and adaptation. May

specialize in any particular field of anthropology and be designated as Physical Anthropologist, Cultural Anthropologist or Archaeologist.

ISCO 08 Unit Group Details:

Code 2632
Title Sociologists,
Anthropologists and
Related Professionals

2632.0800

Anthropologist, Physical

Anthropologist, Physical studies physical nature of man by observation and measurement of bodily variation and physical attributes of existing and pre-historical human types. Identifies and classifies human beings into broad types on basis of their physical characteristics by conducting field investigations. Studies in laboratory physical, physiological and biological characteristics, amenable to accurate measurement and comparison by tracing relationship between genetic structure and other physical characteristics like colour and structure of hair, eyes, ears, etc., and by observing correlation between pathological conditions of parts of body and bodily form. Identifies groups connected genealogically by genetic studies conducted among individuals related by blood. Plans, organizes and conducts field investigation by various methods and techniques to obtain data on blood characteristics, genetic composition and physical measurements of body. Conducts bio-chemical studies of different parts of body to isolate and identify characteristics of cellular structure of different parts of body. Obtains measurements of bony structures of body like capacity of cranium, length of different bones with instruments, like spreading and sliding

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

calliper. Observes other characteristics, which are easily identifiable and can be accurately measured for purposes of comparison between types. Studies characteristics of different parts of skin, specially ridges, patterns or whirls of palms of hand and sole of foot for purposes of identification and comparison. Infers relationship between environment and development of physical characteristics, traces relationship between man and higher animals like apes and monkeys for comparative studies by identifying similarities between physical characteristics and origin and spread of different racial group. Reconstructs fossil-remains after proper measurements, etc.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.0900 Anthropologist, Cultural

Anthropologist Cultural; Social Anthropologist plans, organizes and conducts investigations into physical, social and mental characteristics of both past and present groups of human beings. Identifies regularities governing human cultural life and interprets cultural phenomena over large geographical areas and long time spans. Identifies and isolates cultural groups spread over large regions, and studies differences and similarities in characteristics of different cultural groups. Evaluates social institutions fulfilling requirements of human needs in different cultures. Identifies value systems, motivations and expressions of various human urges and requirements through institutional set ups. Initiates pilot studies into attitudes,

values, technology, personality, etc., of cultural group by employing suitable scientific methods like interview, questionnaire, participant observation and genealogical studies to obtain detailed understanding of social structure and culture of particular group. Classifies data collected, analyses and writes reports. Makes comparison between different cultural groups to define typology of each culture and derives principles of group behaviour, forms of motivation, values upheld in different cultures for purposes of guidance and control in problems of social engineering. Traces cultural evolution and pattern of change over time, by studying re-mains of ancient cultures and records in history, changes in institutions, technology, law, religion, etc. Seeks application of data on special implications of cultural change and social adaptation in fields of education, tribal and rural community development, health and medicine, industrial relations and administration. May study folk dance, drama and music of tribal and peasant communities.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.1000 Genealogist

Genealogist conducts research into genealogical background of individual or family in order to establish descent from specific ancestor or to discover and identify forebears of individual or family: Consults different genealogical tables and publications and documents, such as church and court records, for evidence of births, baptisms, marriages, deaths, and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

legacies in order to trace lines of descent or succession. Constructs chart showing lines of descent and family relationships. Prepares history of family in narrative form or writes brief sketches emphasising points of interest in family background.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.1100 Archaeologist

Archaeologist, studies ancient art, architectural relics, monuments, excavations and other materials to determine social habits customs, religious practices, living conditions, etc., as existed in past and their influence on modern civilization. Visits place of antiquity to study monuments, relics and other materials that were in use in early times. Examines and analyses findings to determine period to which they belong. Conducts exploration, survey and systematic excavation work of ancient sites to discover hidden cities, structures and other antiquities. Collects objects of art, pottery, beads, ornaments and other relics from excavation bearing pre-historic or proto-historic culture. Classifies them according to period to which they belong. Undertakes research on findings and publishes reports on historical importance. Inspects and preserves ancient monuments like temples, forts, mosques, etc. in good order for architectural value. Prepares descriptive catalogues of articles collected and other exhibits in museums. May deliver lectures to students and other interested in archaeology. May undertake architectural

survey of temples and monuments to study form and style of different periods.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.1200 Geographer

Geographer studies characteristics and use of earth's surface relating and interpreting inter-action of physical and cultural phenomena. Investigates nature of physical and climate environment of selected areas by obtaining data with application of various sciences such as physics, geology, oceanography, meteorology and biology. Analyses human activity in its social aspects, such as political, economic, movement and growth of population etc. and deduces relationship between such activity and geographical environment. Conducts cartographic surveys and draws maps to required scales. Provides expert opinion to Government and other organizations on problems of economic exploitation of geographic regions determination of political boundaries and related problems. May specialize in any branch of geography such as study of relationship of economic activities to geographical location and climate movement of population, problems of land utilisation in urban growth and town planning preparation of maps, geographical factors influencing national and international problems and may be designated as ECONOMIC GEOGRAPHER, POLITICAL GEOGRAPHER, PHYSICAL GEOGRAPHER, URBAN GEOGRAPHER, CLIMATOLOGIST, GEOMORPHOLOGIST, METHODOLOGIST etc.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

2632.9900

Sociologists, Anthropologists and Related Professionals, Other

Sociologists, Anthropologists and Related Professionals, Other include all other professionals who investigate and describe the social structure of societies, the origin and evolution of humanity, and the interdependence between environmental conditions and human activities, and make the knowledge obtained available as a basis for policy decisions not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2632
Title	Sociologists, Anthropologists and Related Professionals

Family 2633

Philosophers, Historians and Political Scientists

Philosophers, historians and political scientists conduct research into the nature of human experience and existence, phases or aspects of human history, and political structures, movements and behaviour. They document and report on findings to inform and guide political and individual actions.

2633.0100

Historian

Historian studies, interprets and prepares chronological records dealing with past and current events connected with origin and progress of nation, state, region, institution, etc. Visits places of historical importance, collects historical data from different sources such as archives, court records, diaries, files and other published and unpublished materials. Evaluates data on authenticity and relative significance. Assembles historical data in systematic form relating them to time, place and sequence of cause and effects. Aims at objective statement of facts and writes history in narrative form from assembled data to denote events as they occurred. May specialize in writing history of a particular country or period of time. May conduct research.

ISCO 08 Unit Group Details:

Code	2633
Title	Philosophers, Historians and Political Scientists

2633.0200

Biographer

Biographer studies life of important person and narrates events, interests, behaviour, activities and achievements of individual which enable proper understanding of his character and constitution. Specializes in writing career or phase of life of an individual from available records and other materials. Collects materials from news accounts, diaries, personal paper, correspondence and other details giving account of events in which participated. Consults friends and relatives of individual to get further particulars about person whose biography is to be written. Writes in narrative form life history of person portraying his

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

character and events. May reveal through biography relevant events and developments of contemporary time.

ISCO 08 Unit Group Details:

Code 2633

Title Philosophers, Historians and Political Scientists

2633.0300

Epigraphist

Epigraphist studies inscriptions on ancient monuments, temple walls, stone slabs, rocks, copper plates and other media and deciphers writing to depict historical evolution of country, people and place and to reveal lost history of past and early rulers, their culture, social and religious systems etc. Visits historical and other important places and examines inscriptions on rocks, copper plates, temple walls, images, coins, seals, etc. Takes ink impression of inscriptions found on walls, stone slabs, pillars, etc. on paper; deciphers or decodes contents of such inscriptions written in various languages and scripts. Publishes results of investigations reflecting on history on civilisation. May furnish required information to scholars and research workers.

ISCO 08 Unit Group Details:

Code 2633

Title Philosophers, Historians and Political Scientists

2633.0400

Numismatist

Numismatist specializes in collection, reading inscription, study and interpretation of rare old coins of historical and antique importance. Tours country, collects rare coins and reads and

deciphers old coins. Classifies coins according to period of existence. Arranges and displays coins in exhibition halls, museums etc. Undertakes research on origin and history of old coins and publishes reports and articles in scientific journals. Conducts visitors around exhibits and explains historical importance of coins to them. May sell rare coins for profit. May deliver lectures on historical and cultural importance of coins.

ISCO 08 Unit Group Details:

Code 2633

Title Philosophers, Historians and Political Scientists

2633.0500

Philatelist

Philatelist; Stamp Collector specializes in collection of postage stamps for study or resale. Collects used and unused postage stamps relating to different periods and pertaining to different countries. Classifies them according to periods of issue and country of origin. Conducts exhibition of stamp collection for public view. May undertake systematic research in postal history, printing methods, difference in papers, etc. May sell stamps for profit.

ISCO 08 Unit Group Details:

Code 2633

Title Philosophers, Historians and Political Scientists

2633.0600

Political Scientist

Political Scientist studies development of political institutions and interprets various political events from national, international point of view and formulates political theories to deal with principles of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Government or States. Supervises collection of information relating to origin, development and inter-relationship of political institutions. Studies effect of various phenomena such as political philosophy, public laws and administration, party systems, public opinion, relationship between Government and business, inter-national laws, civic administration, etc. Processes and interprets such data and information to formulate theories and principles for adoption by Government or political parties. May conduct survey of public opinion. May organize and mould public opinion. May specialize in any particular field.

ISCO 08 Unit Group Details:

Code 2633

Title Philosophers, Historians and Political Scientists

2633.9900

Philosophers, Historians and Political Scientists, Other

Philosophers, Historians and Political Scientists, Other include all other professionals who conduct research and describe past events and activities, including the development of social and economic structures, or cultural and political institutions and movements, and make the knowledge obtained available as a basis for political, diplomatic and related policies not classified elsewhere.

ISCO 08 Unit Group Details:

Code 2633

Title Philosophers, Historians and Political Scientists

Family 2634 Psychologists

Psychologists research into and study the mental processes and behaviour of human beings as individuals or in groups, and apply this knowledge to promote personal, social, educational or occupational adjustment and development.

2634.0100

Psychologist

Psychologist studies mental, emotional and cognitive characteristics of human beings and determines principles which govern human behaviour. Investigates factors that affect thought and conduct of human being, and growth and development of individual personality such as heredity, cultural and economic environments, etc. Deals with psychological problems involved in diagnosis, treatment and prevention of mental illness and emotional and personality disorders. Conducts personal interviews or examines individuals to determine their maladjustment and to suggest corrective measures. Develops psychological tests and experiments designed to measure mental characteristics of human beings. Administers psychological and other tests to individuals to evaluate and measure their intelligence, aptitude, ability, interests and other personal characteristics. Formulates methods to train gifted or persons and children who are differently-abled (mentally and/or physically). May render individual counselling and group guidance to persons and students to assist them in selection of their career and courses, inter-personal relationship etc. May teach in institutions and do research work or perform administrative services. May assist Psychiatrist or Physician in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

diagnosing and treating mental cases. May be known as CHILD PSYCHOLOGIST, PSYCHOPATHOLOGIST, etc., according to area of specialisation in which engaged.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

2634.0200

Psychometrist

Psychometrist; administers, score; and interprets intelligence, aptitude, achievement and other psychological tests. Acquires necessary psychological tests and keeps them in his personal custody. Gives psychological tests to individuals, as required by situation, under standard conditions. Times tests and records results. Interprets test results in light of standard norms and limitations of test in terms of variability and reliability. May be engaged in construction and standardization of psycho-logical tests.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

2634.0300

Psychologist, Engineering

Psychologist, Engineering conducts research, development, application, and evaluation of psychological principles relating to human behaviour to characteristics, design, and use of environments and systems within which human beings work and live. Collaborates with equipment designers in design, development, and utilization of man-machine systems to obtain optimum efficiency in terms of human capabilities. Advises on human factors to be

considered in design of man-machine systems, military equipment, and industrial products. Participates in solving such problems as determining numbers and kinds of workers required to operate machines, allocation of functions to machines and operators, and layout and arrangement of work sites. Analyses jobs to establish requirements for use in classification, selection, placement, and training of personnel. Develops training methods and materials, such as curriculums, lectures, and films, and prepares handbooks of human engineering data for use by equipment and system designers. May conduct research to develop psychological theories concerning such subjects as effects of physical factors (temperature, humidity, vibration, noise, and illumination) on worker's behaviour; functional design of dials, scales, meters, and other instruments to minimize sensory requirements; specifications for optimal size, shape, direction and speed of motion, and location of equipment controls; and effects of environmental, organismic, and task or job variables on work behaviour and life quality.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

2634.0400

Psychologist, Educational

Psychologist, Educational investigates processes of learning and teaching and develops psychological principles and techniques applicable to educational problems to foster intellectual, social, and emotional development of individuals. Conducts experiments to study importance of motivation in learning, implications of transfer of training in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

teaching, and nature and causes of individual differences in mental abilities to promote differentiated educational procedures to meet individual needs of students. Analyses characteristics and adjustment needs of superior and inferior students and recommends educational programmes to promote maximum adjustment. Formulates achievement, diagnostic, and predictive tests to aid teachers in planning methods and content of instruction. Administers standardised tests to diagnose disabilities and difficulties among students and to develop special methods of remedial instruction. Investigates traits and attitudes of teachers to study conditions that contribute to or detract from optimal mental health of teachers. Studies effects of teachers' feelings and attitudes upon pupils, and characteristics of successful teachers to aid school administrators in selection and adjustment of teachers. Collaborates with education specialists in developing curriculum content and methods of organizing and conducting classroom work. May specialize in educational measurement, school adjustment, school learning, or special education.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

2634.0500

Psychologist, Social

Psychologist, Social investigates psychological aspects of human interrelationships to gain understanding of individual and group thought, feeling, and behaviour, utilising behavioural observation, experimentation, or survey techniques: Evaluates individual and group behaviour, developing such techniques as rating scales and sampling

methods to collect and measure data. Conducts surveys and polls to measure and analyse attitudes and opinions as basis for predicting economic, political, and other behaviour, using interviews, questionnaires, and other techniques, and adhering to principles of statistical sampling in selecting people. Observes and analyses relations of individuals to religious, racial, political, occupational, and other groups to evaluate behaviour of individuals toward one another in groups, attitudes that exist in groups, and influence of group on individual. Investigates social behaviour of individuals to study such problems as origin and nature of prejudice and stereotyping, transmission of values and attitudes in child rearing, and contribution of factors in social environment to individual mental health and illness. Conducts experimental studies on motivation, morale and leadership and prepares reports on findings.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

2634.0600

Clinical Psychologist

Clinical Psychologist diagnoses or evaluates mental and emotional disorders of individuals, and administers programmes of treatment. Interviews patients in clinics, hospitals, prisons, and other institutions, and studies medical and social case histories. Observes patients in play or other situations, and selects, administers, and interprets intelligence, achievement, interest, personality, and other psychological tests to diagnose disorders and formulate plans of treatment. Treats psychological disorders to effect improved adjustments

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

utilising various psychological techniques, such as milieu therapy, psychodrama, play therapy and hypnosis. Selects approach to use in individual therapy, such as directive, nondirective, and supportive therapy, and plans frequency, intensity, and duration of therapy. May collaborate with PSYCHIATRIST and other specialists in developing treatment programmes for patients. May instruct and direct students serving psychological internships in hospitals and clinics. May develop experimental designs and conduct research in fields of personality development and adjustment, diagnosis, treatment, and prevention of mental disorders. May serve as consultant to industrial, social, educational, welfare, and other agencies on individual cases or in evaluation, planning, and development of mental health programmes. May specialize in behaviour problems and therapy, crime and delinquency, group therapy, individual diagnosis and therapy, mental deficiency, objective tests, projective techniques, or speech pathology.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

2634.0700

Industrial – Organizational Psychologist

Industrial Organizational Psychologists apply principles of psychology to personal, administration, management, sales, and marketing problems. Activities may include policy planning, employee screening, training and development, and organizational development and analysis. May work with management to reorganize the work setting to improve worker productivity. Analyses data, using

statistical methods and applications, in order to evaluate the outcomes and effectiveness of workplace programmes. Conducts research studies of physical work environments, organizational structures, communication systems, group interactions, morale, and motivation in order to assess organizational functioning. Develops and implements employee selection and placement programmes. Develops interview techniques, rating scales, and psychological tests used to assess skills, abilities, and interests for the purpose of employee selection, placement, and promotion. Formulates and implement training programmes, applying principles of learning and individual differences. Identifies training and development needs. Observes and interviews workers in order to obtain information about the physical, mental, and educational requirements of jobs as well as information about aspects, such as job satisfaction.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

2634.0800

Psychologist, Counselling

Psychologist, Counselling provides individual and group counselling services in universities and colleges, schools, clinics, rehabilitation centres and industry to assist individuals in achieving more effective personal, social, educational, and vocational development and adjustment. Collects data about individual through use of interview, case history, and observational techniques. Selects and interprets psychological tests designed to assess individuals' intelligence, aptitudes, abilities, and interests, applying knowledge of statistical analysis. Evaluates data to identify causes of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

problem of individuals and to determine advisability of counselling or referral to other specialists or institutions. Conducts counselling or therapeutic interviews to assist individual to gain insight into personal problems, define goals, and plan action reflecting interests, abilities, and needs. Provides occupational, educational, and other information to enable individual to formulate realistic educational and vocational plans. Follows up results of counselling to determine reliability and validity of treatment used. May engage in research to develop and improve diagnostic and counselling techniques. May administer and score psychological tests.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

2634.9900

Psychologists, Other

Psychologists, other includes all other psychologist, who study mental processes and behaviour of human beings as individuals or in groups, and apply this knowledge to promote personal, social, educational or occupational adjustment and development not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2634
Title	Psychologists

Family 2635

Social Work and Counselling Professionals

Social Work and Counselling Professionals provide advice and guidance to

individuals, families, groups, communities and organizations in response to social and personal difficulties. They assist clients to develop skills and access resources and support services needed to respond to issues arising from unemployment, poverty, disability, addiction, criminal and delinquent behaviour, marital and other problems.

2635.0100

Labour Welfare Officer

Labour Welfare Officer executes policy regarding working conditions, welfare, etc., of workers in industrial undertakings, maintains liaison between management and labour and promotes harmonious relations between them. Brings grievances of workers to notice of management. Interprets labour laws to workers and advises management on various statutory obligations. Promotes harmonious relations between management and workers to ensure efficiency in production, help in formation of welfare activities such as recreational facilities, sanitation, education of children, etc. Helps in formulating employment and recruitment policies in consultation with management and workers' representatives. Uses his good office to bring about settlement by conciliation in event of dispute between workers and management. Ensures all administrative action on part of management in case of labour trouble. May assist employees in their personal problems.

ISCO 08 Unit Group Details:

Code	2635
Title	Social Work and Counselling Professionals

2635.0200

Women's Welfare Officer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Women's Welfare Officer guides and supervises social and welfare activities of women, encourages them to develop community life and utilise their spare time in useful trades and crafts to supplement their family income. Visits welfare centres and institutions and guides their activities. Formulates and implements welfare measures according to need of women workers in factories, institution, prisons, etc. Supervises work of Women's Welfare Organizations and Gram Sevikas.

Recommends proposals of welfare institutions applying for Government aids. Investigates cases of deserted wives, destitute widows, orphans, etc., and recommends admission to care institution in deserving cases. Contacts institutions and persons to secure employment, hospitalisation, and admission to schools, etc. Assists in marketing of finished articles prepared by women welfare organizations. May maintain case history; of women-prisoners and functions as medium of communication between them and their relatives outside, if engaged as LADY WELFARE OFFICER in jail.

ISCO 08 Unit Group Details:

Code 2635
Title Social Work and Counselling Professionals

2635.0300 Probation Officer

Probation Officer, Aftercare Officer, Probation studies and investigates problems of ex-convicts and suggests and undertakes suitable measures towards their rehabilitation as useful citizens. Studies back ground and environments of offenders to ascertain causes of delinquency and maladjustment and reports to court to determine their probation period and corrective measures

to be taken. Undertakes aftercare of ex-inmates of certified and juvenile schools. Encourages discharged prisoners to join aftercare homes and service centres to learn craft or profession. Assists ex-convicts in their rehabilitation. May maintain information of convict to ensure that they do not turn habitual offenders. May be designated as WELFARE OFFICER (Jails) if looks after welfare of prisoners in jail and their families outside and maintains liaison between them.

ISCO 08 Unit Group Details:

Code 2635
Title Social Work and Counselling Professionals

2635.0400 Medical Social Worker

Medical Social Worker assists in solving social and emotional problems of individuals in relation to illness. Acts as Liaison between patients and Physicians, Occupational Therapists and other medical service workers to facilitate treatment. Discusses with physicians so that their understanding of patient's social problems is adequate. Visits homes to assist in preparing proper environment for patients. Assists patients and their families in developing mental and emotional adjustments to illness. Attempts to eliminate fears, prejudice and other attitudes that are obstacles to acceptance of medical care and continuation of treatment. Facilitates effectiveness of treatment or recuperation by assisting patients to regulate their lives so that harmful factors such as overwork, strenuous recreational activities, inadequate diet and worries are removed. Refers patients to community resources that may expedite their rehabilitation. May participate in research

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

programmes related to medico-social problems.

ISCO 08 Unit Group Details:

Code 2635

Title Social Work and Counselling Professionals

2635.0500

Child and Family Social Worker

Child and Family Social Workers provide social services and assistance to improve the social and psychological functioning of children and their families and to maximise the family well-being and the academic functioning of children. May assist single parents, arrange adoptions, and find foster homes for abandoned or abused children. Interview clients individually, in families, or in groups, assessing their situations, capabilities, and problems, to determine what services are required to meet their needs. Counsel individuals, groups, families, or communities regarding issues including mental health, poverty, physical abuse, rehabilitation, social adjustment, child care, and/or medical care. Maintain case history records and prepare reports. Consult with parents, teachers, and other school personnel to determine causes of problems such as truancy and misbehaviour, and to implement solutions. Counsel parents with child rearing problems, interviewing the child and family to determine whether further action is required. Develop and review service plans in consultation with clients, and perform follow-ups assessing the quantity and quality of services provided. Collect supplementary information needed to assist client, such as medical records, or school reports. Address legal issues, such as child abuse and discipline, assisting with hearings and providing

testimony to inform custody arrangements. Provide, find, or arrange for support services, such as child care, prenatal care, substance abuse treatment, job training, counselling, or parenting classes, to prevent more serious problems from developing.

ISCO 08 Unit Group Details:

Code 2635

Title Social Work and Counselling Professionals

2635.0600

Health Educator

Health Educators Promote, maintain, and improve individual and community health by assisting individuals and communities to adopt healthy behaviours. Collect and analyse data to identify community needs prior to planning, implementing, monitoring, and evaluating programmes designed to encourage healthy lifestyles, policies and environments. May also serve as a resource to assist individuals, other professionals, or the community, and may administer fiscal resources for health education programmes. Collaborate with health specialists and civic groups to determine community health needs and the availability of services, and to develop goals for meeting needs. Design and conduct evaluations and diagnostic studies to assess the quality and performance of health education programmes. Develop and present health education and promotion programmes, such as training workshops, conferences, and school or community presentations. Develop operational plans and policies necessary to achieve health education objectives and services. Develop, conduct, or co-ordinate health needs assessments and other public health surveys. Prepare and distribute health education materials,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

including reports, bulletins, and visual aids, such as films, videotapes, photographs, and posters. Provide guidance to agencies and organizations in the assessment of health education needs, and in the development and delivery of health education programmes. Provide programme information to the public by preparing and presenting press releases, conducting media campaigns, and/or maintaining programme-related web sites. Develop and maintain cooperative working relationships with agencies and organizations interested in public health care. Develop and maintain health education libraries to provide resources for staff and community agencies.

ISCO 08 Unit Group Details:

Code 2635
Title Social Work and Counselling Professionals

2635.0700

Women's Welfare Organizer

Women's Welfare Organizer attends to activities relating to welfare of women such as teaching better methods of housekeeping, hygiene and sanitation, helpings to learn crafts to improve their earnings, assisting in getting medical aid, conducting classes to promote and improve literacy, etc. Visits women at home or in women's welfare institutions and advises them on childcare, sanitation, diet, etc. Conduits community service centres encouraging women to participate in them. Assists in conducting classes to promote and improve literacy or craft skill. Arranges admission of children to schools, orphanages etc., where required. Investigates cases of deserted wives, widows etc. for monetary grant or other assistance.

ISCO 08 Unit Group Details:

Code 2635
Title Social Work and Counselling Professionals

2635.0800

Child Welfare Organizer

Child Welfare Organizer develops programme content, organizes and leads activities planned to aid parents with child rearing problems and children with difficulties in social adjustments. Visits homes in slum areas and crowded quarters to investigate home conditions to protect children from harmful environment and disseminate information on rearing children in healthy condition. Helps parents through individual or group conferences to understand, accept and follow medical recommendations on child welfare and hygiene. Arranges exhibitions and film shows on child health. Organizes 'Balwadis' (children play centres) and arranges day-care-service for children. May place children in foster homes, institutions, medical treatment centres and provide counselling to children and parents on social adjustment. May work in collaboration with other social organizations. May refer juveniles to community agencies and health clinics for mental, physical and social rehabilitation and be designated as SOCIAL WORKER, DELINQUENCY PREVENTION.

ISCO 08 Unit Group Details:

Code 2635
Title Social Work and Counselling Professionals

2635.0900

Family Planning Organizer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family Planning Organizer advises married couples in spacing children and to limit size of family by adopting various birth control methods. Visits homes and community centres; collects necessary data and enlightens clients on benefits of Planned Parenthood. Advises clients in use of contraceptives and assists them to visit family planning centres. Suggests surgical operations or other methods to limit size of family and guides them to family planning clinics. Undertakes follow-up action to obtain results and reports cases to appropriate authorities. Participates in family planning exhibitions and related publicity campaigns and distributes relevant literature and materials. May demonstrate use of contraceptives by diagrams and models.

ISCO 08 Unit Group Details:

Code 2635

Title Social Work and Counselling Professionals

2635.1000 Vocational Rehabilitation Counsellor

Vocational Rehabilitation Counsellor Counsels differently-abled individuals to provide vocational rehabilitation services. Interviews and evaluates differently-abled applicants, and confers with medical professional personnel to determine the type and degree of disability, eligibility for service, and feasibility of vocational rehabilitation. Accepts or recommends acceptance of suitable candidates. Determines suitable job or business consistent with applicant's desires, aptitudes, and physical, mental, and emotional limitations. Plans and arranges for the applicant to study or train for the job. Assists the applicant with personal adjustment through rehabilitation

programmes. Aids applicant in obtaining medical and social services during training. Promotes and develops job openings and places qualified applicant in employment. May specialize in type of disability, such as mental, hearing and visual impairment.

ISCO 08 Unit Group Details:

Code 2635

Title Social Work and Counselling Professionals

2635.1100

Counsellor, Marriage and Family

Counsellor, Marriage and Family provides individual, marital, and family counselling services to adults and children, to assist clients to identify personal and interactive problems, and to achieve effective personal, marital, and family development and adjustment. Collects information about clients (individuals, married couples, or families), using interview, case history, and observation techniques, appraisal and assessment methods. Analyses information collected to determine advisability of counselling or referral to other specialists or institutions. Reviews notes and information collected to identify problems and concerns. Consults reference material, such as textbooks, manuals, and journals, to identify symptoms, make diagnoses, and develop treatment plan. Counsels clients, using counselling methods and procedures, such as psychotherapy and hypnosis, to assist clients in gaining insight into personal and interactive problems, to define goals, and to plan action-reflecting interests, abilities, and needs. Evaluates results of counselling methods to determine reliability and validity of treatment used.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2635

Title Social Work and Counselling Professionals

2635.9900

Social Work Professionals, Other

Social Work Professionals, other include workers engaged in social welfare activities such as welfare of slum dwellers, organizing social functions in honour of distinguished persons, etc. not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2635

Title Social Work and Counselling Professionals

Family 2636

Religious Professionals

Religious Professionals function as perpetuators of sacred traditions, practices and beliefs. They conduct religious services, celebrate or administer the rites of a religious faith or denomination, provide spiritual and moral guidance and perform other

2636.0100

Priest

Priest, Clergyman; Minister; Pastor; Rector; Father; Parish Priest conducts religious worship and performs rites in accordance with religious scriptures and recognised practices in temple, church, mosque or other places of worship. Arranges and conducts regular prayers in places of worship, delivers sermons, recites verses, mantras from holy books and performs Baptism, Communion.

Matrimony, etc. according to one's religion and faith. Administers sacraments, last rites etc. Helps community responsibilities by taking part in committees, delivering addresses etc. and undertakes charitable works. May visit sick, poor to render necessary help. May administer property of Parishes or religious institutions. May teach in school, college or any religious institutions. May inspect schools under orders of Diocese or Archdiocese and be placed in charge of an ecclesiastical district. Is designated as Pujari when professes Hindu faith; Padre; Father; Reverend; Bishop etc. if belongs to Christianity; Imam or Moulvi if belongs to Islam. Dastoor if belongs to Zoroastrianism; Rabbi if follower of Judaism, Granthi if follower of Sikhism, etc.

ISCO 08 Unit Group Details:

Code 2636

Title Religious Professionals

2636.0200

Purohit

Purohit performs religious rites and ceremonies of Hindus on behalf of persons engaging him on religious and other social occasions such as marriage, birth of child, sacred thread ceremony, and religious festivals. Performs rites, marriage, birth of child, sacred thread ceremony, etc. by chanting religious hymns. Passages from scriptures and or performing Havans, Kirtans, etc. to invoke divine blessing. May worship a particular Deity in the temple.

ISCO 08 Unit Group Details:

Code 2636

Title Religious Professionals

2636.9900

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Non-Ordained Religious Workers

Non-Ordained Religious Workers, other assist Ordained Religious Workers in conducting worship, performing religious rites in places of worship and on special occasions such as marriages, births, deaths, etc. and include those not elsewhere classified and is designated as: Maha Brahmin; Mahapatra if performs last rites of deceased persons belonging to Hindu faith at cremation ground. Sets pyre, chants religious hymns. May maintain record of dead bodies cremated. May arrange for firewood, ghee and other articles required for cremation. Moazzen calls Azan (Prayer call) in mosques at fixed times before each prayer. Looks after cleanliness of mosque and makes arrangements of water for worshippers to wash before prayer (wazoo). May lead prayer in absence of Imam (leader in group prayers). Sexton looks after church property; rings church bell for periodic services, and takes care of church graveyard. May assist Pastor or priest in performance of religious rites.

ISCO 08 Unit Group Details:

Code 2636
Title Religious Professionals

Group 264

Authors, Journalists and Linguists

Authors, Journalists and Linguists conceive and create literary works, interpret and communicate news and public affairs through the media and translate or interpret from one language into another.

Occupations in this Group are classified into the following Families:

2641 Authors and Related Writers

2642 Journalists
2643 Translators, Interpreters and Other Linguists

Family 2641 Authors and Related Writers

Authors and Related Writers plan, research and write books, scripts, storyboards, plays, essays, speeches, manuals, specifications and other non-journalistic articles (excluding material for newspapers, magazines and other periodicals) for publication or presentation.

2641.0100 Author

Author writes original literary works such as articles, stories, fictions, dramas, essays, poems, plays etc. Collects necessary data, arranges it in required form for writing. Writes stories essays, poems, plays, etc. in literary or in his own style. May write on technical subjects. May be known as Novelist, Poet, Essayist, and Playwright etc. according to type of literature written.

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0200

Critic

Critic; Reviewer writes critical re-views on merits of literary or artistic works, for newspapers or periodicals. Reads books, attends art exhibits, or stage, screen, and musical performance and forms critical opinions of them based on knowledge, judgement and experience. Writes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

criticism, usually making comparisons with other works or productions and discussing such pertinent factors as artistic motif, expression and technique. May be designated according to major field of interest Art Critic; Book Critic; Drama Critic; Movie Critic and Music Critic.

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0300

Editor

Editor edits or directs editing of newspapers, journals, books and leading articles on contemporary events. Plans layout of publications, assigns and co-ordinates work of different sections and staff such as Sub Editor, Reporter, Photographer, etc. Examines written material, Scrutinises and edits reports of meetings, important events etc., received from correspondents for publication. Writes leading articles on important subjects or events in accordance with prescribed policy. Is designated as News Editor if engaged in editing news items; Commercial Editor if engaged in editing commercial, financial or trade news; Sports Editor if editing sports news; Feature Editor if engaged in writing special feature articles; Literary Editor if engaged in reviewing literary works. Is also designated as Chief Editor; Assistant Editor according to level of responsibility held. May be known as Leader Writer if exclusively engaged in writing leading articles on topics of general interest.

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0302

Script Editor

Script Editor reads and assesses the script for the merit of the story, its dramaturgy and overall competence and offer feedback and notes for improvement to make the script production worthy.

Qualification Pack Details:

QP NOS Reference	MES/Q3001
QP NOS Name	Script Editor
NSQF Level	7

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0400

Sub-editor

Sub-Editor selects and processes material for publication in conformity with policy of management. Selects news reports, revises or summarises them to fit into space allotted, gives proper headlines, arranges report for effective display and corrects proof. May specialize in particular fields such as foreign news, sports, films, etc. and be designated accordingly. Is designated as Chief Sub-Editor if responsible for assigning co-co-ordinating and supervising work of different Sub-Editors.

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0500

Poet

Poet Writes narrative, dramatic, or lyric poetry for magazines, books, and other publications: Chooses subject matter and suitable form to express personal feeling

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and individual experience, or to narrate story or event. May write doggerel or other type verse.

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0601 **Script Writer**

Script Writer (Motion Picture) writes script (plan of shooting) to facilitate shooting of films. Studies story and divides it into different scenes and shots. Prepares data, scene by scene, including time and location of shooting, costumes and other details. Consults Director, Theatrical and Cinematographer. May visit location of shooting to make script more practicable.

Qualification Pack Details:

QP NOS Reference	MES/Q3002
QP NOS Name	Script-writer
NSQF Level	6

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0602 **Script Researcher**

Script Researcher needs to provide research material to the scriptwriter and carry out research/develop story outlines to identify possible scripts/stories.

Qualification Pack Details:

QP NOS Reference	MES/Q3003
QP NOS Name	Script
Researcher	
NSQF Level	5

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0701 **Associate-Editorial**

Associate-Editorial is responsible for checking grammatical errors and editing the research reports.

Qualification Pack Details:

QP NOS Reference	SSC/Q2701
QP NOS Name	Associate-Editorial
NSQF Level	7

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0801 **Associate-Learning**

Associate-Learning is required to structure learning courseware, prepare online training materials and documents, and create content using software tools. It also involves structuring of e-learning courseware to facilitate effective, engaging and performance-enhancing learning.

Qualification Pack Details:

QP NOS Reference	SSC/Q2801
QP NOS Name	Associate-Learning
NSQF Level	7

ISCO 08 Unit Group Details:

Code 2641
Title Authors and Related Writers

2641.0901 **Technical Writer-Product Documentation**

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Technical Writer-Product Documentation is responsible for creating technical documentation related to an application like job-aids, help documents and training materials. These documents serve the core purpose of transferring knowledge between the application development teams and the user teams. The information may be presented in the form of user guides for software applications, reference manuals, training guides or online help incorporated into software and operating guides.

Qualification Pack Details:

QP NOS Reference	SSC/Q6801
QP NOS Name	Technical Writer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2641
Title	Authors and Related Writers

2641.0902

Technical Writer-Application Development

Technical Writer-Application Development is responsible for creating technical documentation related to an application like job-aids, help documents and training materials. These documents serve the core purpose of transferring knowledge between the application development teams and the user teams. The information may be presented in the form of user guides for software applications, reference manuals, training guides or online help incorporated into software and operating guides.

Qualification Pack Details:

QP NOS Reference	SSC/Q0505
QP NOS Name	Technical Writer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	2641
Title	Authors and Related Writers
Related Writers	

2641.0903

Technical Writer-Technical Documentation/Writing

Technical Writer-Technical Documentation/Writing is responsible for creating technical documentation related to an application like job-aids, help documents and training materials. These documents serve the core purpose of transferring knowledge between the application development teams and the user teams. The information may be presented in the form of user guides for software applications, reference manuals, training guides or online help incorporated into software and operating guides.

Qualification Pack Details:

QP NOS Reference	SSC/Q4501
QP NOS Name	Technical Writer
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2641
Title	Authors and Related Writers

2641.9900

Authors, Journalists and Other Writers

Authors, Journalists and Other Writers who write literary works for publication or presentation in dramatic form, appraise merits of artistic productions, or literary and other works of art, or write and edit news, stories and commentaries not classified elsewhere.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2641

Title Authors and Related Writers

Family 2642

Journalists

Journalists research, investigate, interpret and communicate news and public affairs through newspapers, television, radio and other media.

2642.0100

News Reporter

News Reporter; News Correspondent collects news by touring area allotted to him, interviewing persons, attending public functions and law courts, investigating events of public interest or by other means and transmits news to Editor for publication. Attends public meetings and press conferences, interviews important public men to collect news and to ascertain their views on contemporary events. Reports or transmits news item to Editor giving background history and comments. May specialize in reporting particular types of news such as those relating to political events, commerce, sports, theatre etc. and be designated accordingly: Is designated as Chief Reporter if responsible for allocating and co-ordinating work of different Reporters.

ISCO 08 Unit Group Details:

Code 2642

Title Journalists

2642.0200

Columnist

Columnist reviews events, developments etc. of public interest periodically in

particular columns of newspapers or magazines. Reviews contemporary events by interviewing persons, observing events, attending public meetings, parliamentary debates etc. if necessary. May write in humorous or critical style.

ISCO 08 Unit Group Details:

Code 2642

Title Journalists

2642.0300

Freelance Journalist

Freelance Journalist contributes to newspapers or magazines, occasionally, special articles on subjects of his choice for publication. Writes articles on selected subjects occasionally besides his normal avocation. May write feature articles.

ISCO 08 Unit Group Details:

Code 2642

Title Journalists

2642.0400

Commentary Writer

Commentary Writer (Motion Picture) writes commentary to describe visuals of motion picture. Studies general background of material to be commented reads script and sees film to understand theme. Writes commentary to interpret or describe each event to assist audience to grasp meaning of theme of film. Uses literary acumen to make commentary more meaningful. Infuses emotional effect in writing to suit mood and tempo of visual.

ISCO 08 Unit Group Details:

Code 2642

Title Journalists

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

2642.0500

Radio Commentator

Radio Commentator gives running commentary on events of national importance, sports events, festivals, etc. over broadcasting system. Obtains general background of events or occasion, which has to be covered, by consulting relevant literature, interviewing people and visiting locale. Occupies vantage position to obtain clear unobstructed view to what happens. Describes locale personalities, sequence of events, etc. pinpointing important aspects of occasion by modulating tone of speech. Nar-rates events commenting on important aspects of occasion and events to maintain continuous interest and provide comprehensive picture of event. May specialize in commenting on particular event(s). May keep themselves informed of important day-to-day happenings and events and broadcast his comments on radio according to set programme for general information. May record commentary by speaking into portable tape recorder by visiting and moving about at the site of activity. May be designated as Television Commentator if engaged on rendering commentary in television programmes.

ISCO 08 Unit Group Details:

Code	2642
Title	Journalists

2642.0600

Commentator (Motion Picture)

Commentator (Motion Picture) gives running commentary to interpret or to describe visuals of motion picture. Obtains general background of material to be covered. Studies narration, and sees film to grasp subject, visuals and mood.

Narrates events, synchronizing commentary with visuals using trained voice and tone to suit subject and mood. Dramatizes narration under guidance of Director Theatrical by infusing emotional effects in tone and in harmony with mood and tempo of visuals. May write the commentary.

ISCO 08 Unit Group Details:

Code	2642
Title	Journalists

Family 2643

Translators, Interpreters and Other Linguists

Translators, Interpreters and Other Linguists translate or interpret from one language into another and study the origin, development and structure of languages.

2643.0100

Language Specialist

Language Specialist; specializes in one or more Indian or foreign languages. Collects literature from archives, libraries on languages and studies their structure and development. Traces origin and evolution of words and deciphers writings and ancient languages found in archaeological remains of past civilisation. Analyses ancient languages and compares them with modern languages. Writes theses and prepares dictionaries. May be designated as PHILOLOGIST if engaged in study of structure and development of languages or LEXICOGRAPHER if engaged in compiling dictionary in one or more languages.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code	2643
Title	Translators, Interpreters and Other Linguists

2643.0200

Translator

Translator translates written or printed material from one language to one or more other languages. Scrutinises reports, publications, journals, court judgements, rules and other documents written or printed in one language and translates them into required languages.

ISCO 08 Unit Group Details:

Code	2643
Title	Translators, Interpreters and Other Linguists

2643.0300

Interpreter

Interpreter interprets converts or elucidates spoken language or words into, one or other required languages for being understood by those who do not understand that language. Listens to speaker attentively and renders quickly and fluently translation of spoken language in specified language. May take short notes to enable correct interpretation. May translate written or printed material into specified language.

ISCO 08 Unit Group Details:

Code	2643
Title	Translators, Interpreters and Other Linguists

2643.0401

Language Translator-Software Products

Language Translator-Software Products is responsible for translating software into different languages that end-users may be well-versed with. These extend beyond regular language translator roles as they require understanding of the software languages and platforms.

Qualification Pack Details:

QP NOS Reference	SSC/Q6802
QP NOS Name	Language Translator
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2643
Title	Translators, Interpreters and Other Linguists

2643.0402

Language Translator-IT Services

Language Translator-IT Services is responsible for translating software into different languages that end-users may be well-versed with. These extend beyond regular language translator roles as they require understanding of the software languages and platforms.

Qualification Pack Details:

QP NOS Reference	SSC/Q0506
QP NOS Name	Language Translator
NSQF Level	7

ISCO 08 Unit Group Details:

Code	2643
Title	Translators, Interpreters and Other Linguists

2643.9900

Philologists, Translators and Interpreters, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Philologists, Translators and Interpreters, other include all philologists, translators and interpreters who study the origin, development and structure of languages, and translate or interpret from one language in to another not classified elsewhere.

ISCO 08 Unit Group Details:

Code	2643
Title	Translators, Interpreters and Other Linguists

Group 265 Creative and Performing Artists

Creative and Performing Artists communicate ideas, impressions and facts in a wide range of media to achieve particular effects; interpret a composition such as a musical score or a script to perform or direct the performance; and host the presentation of such performance and other media events.

Occupations in this Group are classified into the following Families:

2651 Visual Artists
2652 Musicians, Singers and Composers
2653 Dancers and Choreographers
2654 Film, Stage and Related Directors and Producers
2655 Actors
2656 Announcers on Radio, Television and Other Media
2659 Creative and Performing Artists, Not Elsewhere Classified

Family 2651 Visual Artists

Visual Artists create and execute works of art by sculpting, painting, drawing, creating cartoons, engraving or using other techniques.

2651.0100

Sculptor

Sculptor carves figures, statues, monuments and other imaginative designs in abstract forms by chiselling stone or carving wood or modelling clay or any other material either direct from original or from models prepared by him or Modeller. Selects material such as stone, wood, clay, ivory, marble, wax, etc. according to requirements. Sketches design and makes scale model in wax or plaster. Transfers measurements to block. Carves, or shapes block using different tools achieving unity and harmony. Is designated as Sthapathi if engaged in designing, carving and drilling holes in stones to make Idols for use in temples from mental perception as described in 'Shastras' (holy scriptures of Hindus) by the use of hammer and chisels only. May sharpen tools by hand or on machine. May inscribe decorative lettering and monumental sculptures on models. May make clay or wax models and caste same in plaster of Paris or bronze.

ISCO 08 Unit Group Details:

Code	2651
Title	Visual Artists

2651.0200 Modeller (Except Stone)

Modeller (Except Stone) makes clay or plaster of Paris models of pottery, porcelain and models of anatomical studies according to drawing and specifications, for mass production.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Prepares clay, wax or plaster of Paris foundation. Carves material, using shaping tools, lathe or potter's wheel to resemble model to exact size and other specifications. May prepare model of important persons by observing person's facial expression and features, and carving and shaping material to required size and form. May create own designs.

ISCO 08 Unit Group Details:

Code	2651
Title	Visual Artists

2651.0300

Stone Modeller

Stone Modeller; Stone Statue Maker carves out features, statues, models, idols and other artistic designs on stone slabs, blocks or pillars for construction of temples, monuments, fountains, buildings etc. using hand tools. Studies nature of carvings to be done from drawings, photographs, written descriptions etc. or receives instructions from Sthapathi or other appropriate authority. Forms mental picture of carving to be done and selects required type of stone such as marble, soapstone, granite, green stone, etc. Chips off unwanted portions of stone with hammer and chisel and marks outline of figures with chalk, pencil or ochre solution by free hand sketching using drawing and measuring instruments. Places stone in working position, applies oil over its surface if working on granite and carefully carves out figures, statues, idols, models etc. as designed using hammer and chisels of different sizes. Marks portion with paint otherwise to indicate stages of work and facilitate carving and gives smooth and finishing touches to carved figures using fine chisels. Cuts slits and drills holes as designed using saw blades and hand drills

or with hammer and chisels depending on specifications and nature of work done particularly for carvings of idols and images meant for temples. Brushes off dust and waste material from object and sprinkles water on it, as necessary, while carving. May carve numbers and letters and create designs. May make clay model of statue or image to be carved to ensure accuracy and facilitate working.

ISCO 08 Unit Group Details:

Code	2651
Title	Visual Artists

2651.0400

Painter, Fine Art

Painter, Fine Art paints portraits, scenery or depicts objects or scenes on different surfaces in oil, pastel or watercolour using brush. Prepares surface of canvas, wood, paper, wall or other material by priming it with starch, glue, gelatine, linseed oil, zinc oxide, etc. for painting. Selects and mixes paints to required colour and sketches preliminary outlines or drawing of object to be painted on surface. Paints with required colours using brush to obtain clear line and design. Varnishes finished painting when dry for effect and preservation. May touch or re-touch faded portions of paintings with appropriate colour to give original effect. May use chemical colours for' painting on porcelain.

ISCO 08 Unit Group Details:

Code	2651
Title	Visual Artists

2651.0500

Renovator, Paintings

Renovator, Paintings restores damaged, soiled or faded paintings to original shape and colour by cleaning, repairing,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

retouching etc. Cleans faded or damaged portion to remove dirt using brush or duster. Mixes paint to required colour. Paints faded portions with appropriate colour to revive original appearance and shine. Renovates damaged painting or part thereof by transferring entire painting to fresh canvas by scientific method. Retouches blemishes and damaged parts of painting.

ISCO 08 Unit Group Details:

Code	2651
Title	Visual Artists

2651.0600

Cartoonist

Cartoonist draws cartoons or caricature of persons and events in humorous or satirical manner for publication in newspapers, journals etc. or for production of cartoon films. Reads news items, books etc. and observes events to obtain ideas for subject matter to be sketched. Draws out lines of caricature and sketches on paper or cardboard, using pencil, ink or brush. Completes caricature or sketch by shadings with pen and brush. Sends cartoons to process department for engraving or for photographing. May discuss with employer regarding broad policies to be adopted in drawing cartoons to portray events. May give captions or descriptive titles to cartoons.

ISCO 08 Unit Group Details:

Code	2651
Title	Visual Artists

2651.9900

Visual Artists, Other

Sculptors, Painters and Related Artists, other include all other sculptures, painters

and related artists engaged in specialized fields of painting, sculpture, modelling etc. not elsewhere classified.

ISCO 08 Unit Group Details:

Code	2651
Title	Visual Artists

Family 2652

Musicians, Singers and Composers

Musicians, singers and composers write, arrange, conduct and perform musical compositions.

2652.0100

Music Composer

Music Composer; Lyricist creates and writes classical or light songs and sets them to music. Studies different laws and principles of melodies, harmonies and other scientific aspects of music and transcribes songs in to musical notations. Writes original music compositions in different styles for radio, stage or screen. May write musical scores for Instrument Musician. May conduct research in history of songs and musical compositions.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code	2652
Title	Musicians, Singers and Composers

2652.0200

Orchestra Conductor

Orchestra Conductor; Bandmaster conducts or directs orchestra, chorus or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

other musical performances by directing and controlling various instrumentalists in rendition of music. Selects musical composition to be rendered. Arranges location of different instrument players to get harmonious music. Directs group by beat of hand or other signals for rendering of music by all members in harmony and melody. May play one or more instruments. May conduct research in different types of musical composition and devise new types of music suitable for orchestra or other musical performances. May train musicians or bandsmen.

ISCO 08 Unit Group Details:

Code 2652

Title Musicians, Singers and Composers

2652.0300

Singer

Singer; Vocal Musician; Vocalist sings Indian or Western music either alone or in-group, with or without musical accompaniments. Sings classical or light songs with other accompaniment such as violin, mridangam, sarangi, tabla, piano, flute, harmonium etc. May act and dance while singing songs. May compose own poems and write books on music. May play on musical instruments while singing.

ISCO 08 Unit Group Details:

Code 2652

Title Musicians, Singers and Composers

2652.0400

Instrumental Musician, String Instrument

Instrumental Musician, String Instrument plays musical string instruments of Indian or Western origin by movement of fingers or bow on strings. Rehearses music on musical stringed instruments. Tunes

instrument to required pitch and harmony with other instruments. Plays singly or in accompaniment with other singers or musicians as member of orchestra, by set movements of fingers or bow on strings. May compose own music or invent own instrument to produce special effects. May be designated according to instruments played such as VEENA PLAYER, SITAR PLAYER, SARANGI PLAYER, SAROD PLAYER, VIOLINIST/BASS PLAYER, HARPIST, etc.

ISCO 08 Unit Group Details:

Code 2652

Title Musicians, Singers and Composers

2652.0500

Instrumental Musician, Percussion Instrument

Instrumental Musician Percussion Instrument plays musical percussion instruments such as Tabla, Drum, Pakhawaj etc. by hands or sticks usually to provide rhythmic company to other musicians. Tunes instrument to required pitch by tightening or loosening cords holding leather pieces fixed atop or at both ends of instrument. Plays instrument gently with hand or stick or both to provide rhythm, alone or in accompaniment to other musical instrument(s). May sing classical or light songs while playing instrument. May be known as TABLA PLAYER, DRUMMER, MRIDANGIST, PAKHAWAJ PLAYER, CYMBAL1ST, etc. according to instrument played.

ISCO 08 Unit Group Details:

Code 2652

Title Musicians, Singers and Composers

2652.0600

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Instrumental Musician, Wind Instrument

Instrumental Musician, Wind Instrument; plays musical wind instruments of Indian or Western origin by blowing with mouth and using fingers to produce desired effect. Blows instrument by mouth and allows wind to pass through reeds by systematic movement of fingers on holes or keys of instrument to produce melodious tune. May play wind instrument alone or in accompaniment of other musicians. May be known as FLUTE (Bansuri) PLAYER: SHAHNAI PLAYER; Clarinettist: OBOIST; SAXOPHONIST; TRUMPETER: TROMBONIST; BAGPIPER, etc. according to instrument played.

ISCO 08 Unit Group Details:

Code 2652

Title Musicians, Singers and Composers

2652.9900

Musicians, Singers and Composers, Other

Composers, Musicians and Singers, other include all other composers, musicians and singers engaged in composing, production and rendering music, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2652

Title Musicians, Singers and Composers

Family 2653

Dancers and Choreographers

Dancers and choreographers conceive and create or perform dances.

2653.0100

Choreographer

Choreographer designs dances, specially ballet, for stage or film production. Selects suitable theme for dance. Plans dance, works out movement and arrangement of dancers on stage by drawing sketches of sequences and different situations on paper and by observing dancers in action. Discusses requirements of stage setting; music and costumes with other stage specialists to convey correct interpretation of theme to audience. May conduct rehearsals and design costumes for dancers.

ISCO 08 Unit Group Details:

Code 2653

Title Dancers and Choreographers

2653.0200

Nattuvan

Nattuvan rehearses, teaches and conducts Bharatanatyam performances. Studies different types of musical compositions suitable for dance performance. Originates and plans dances. Teaches Dancer in the art of Bharatanatyam (movement of body and limbs to keep step with rhythm to music). Trains and rehearses members of dance troupe according to required theme and gives personal demonstration to pupils in movement of limbs and facial expression to interpret moods, grace, pose, poise etc. Renders vocal music and or conducts orchestra for Dancer to dance according to music.

ISCO 08 Unit Group Details:

Code 2653

Title Dancers and Choreographers

2653.0300

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Dancer

Dancer performs dances either alone, with partner or in groups to entertain audience. Puts on required dress and make-up and performs classical, modern or acrobatic dances, co-ordinating body movements and facial expressions with musical accompaniment to express theme of dance. Rehearses dance routines developed by Choreographer. May perform original dances. May sing and provide other forms of entertainment. May specialize in particular style of dancing and be designated according to speciality as BHARATANATYAM DANCER, if dances in "Bharatanatyam", style; KATHAKALI DANCER, if dances in "KATHAKALI", style; KATHAK DANCER, if dances in "Kathak", style; MANIPUR DANCER, if dances in "Manipur", style; BALLET DANCER, WESTERN STYLE, if dances in "Western style", expressing theme or story by moving on toes, rhythmic leaps, quick movement of body, legs and arms; ACROBATIC DANCER, performs style of dancing characterized by difficult gymnastic feats; BALL ROOM DANCER performs original or interpretative modern dances, usually with opposite sex. May conduct classes to teach various dances.

ISCO 08 Unit Group Details:

Code 2653
Title Dancers and
Choreographers

2653.9900

Choreographers and Dancers, Other

Choreographers and Dancers, other includes all other choreographic and dancing professionals not classified

elsewhere. NATIONAL CLASSIFICATION OF OCCUPATIONS

ISCO 08 Unit Group Details:

Code 2653
Title Dancers and
Choreographers

Family 2654

Film, Stage and Related Directors and Producers

Film, Stage and Related Directors and Producers oversee and control the technical and artistic aspects of motion pictures, television or radio productions and stage shows.

2654.0100

Director, Theatrical

Director, Theatrical selects suitable Actors and Actresses for motion picture or stage, interprets respective roles to them, directs rehearsals, supervises and co-ordinates activities of Cameramen, Scenery Designers, Sound Technicians, Property Man etc. Studies selected script or story, and selects Actors and Actresses and other technical staff according' to requirements. Assigns roles to different Actors and Actresses according to their suitability. Holds rehearsals and directs actions, gestures, dialogues etc., of Actors and Actresses. Selects location for outdoor shooting of film, as necessary. Supervises setting up of sets and stage. Co-ordinates work of different staff engaged in producing film or stage performance. May attend to business' management, such as payment to staff, purchase of material, arranging transport for staff and equipment. May specialize in directing mythological, social or historical films or stage performances. May be

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

known as FILM DIRECTOR, STAGE DIRECTOR OR STUDIO DIRECTOR, according to field of work.

ISCO 08 Unit Group Details:

Code 2654

Title Film, Stage and Related Directors and Producers

2654.0200

Director, Music

Music Director selects music, singers and instrumental musicians in consultation with Director Theatrical and Music Composer for purposes of stage or film production and directs effective rendering of music. Consults Director Theatrical and Music Composer regarding music composed, and situations, events, scenes etc., where songs and music are to be played. Sets music to required tunes to portray particular situation or event. Selects and fixes suitable artist to render composed music to set tunes. Conducts rehearsals frequently with artists for proper rendition of songs. Supervises recording of playback music and its synchronization with story of film. May play one or more musical instruments or render vocal music. May specialize in directing group or orchestral music.

ISCO 08 Unit Group Details:

Code 2654

Title Film, Stage and Related Directors and Producers

2654.0300

Dance Director

Dance Director; selects dances, suitable dancers and orchestra for purposes of stage or film production, decides costumes settings and directs

performance. Consults Director, Film regarding script, story and songs. Studies sequence scenery, situation of events etc. in motion picture and decide tunes, costumes and stage settings. Assigns different roles to dancers. Trains Dancers to display them and events. May specialize in oriental or western dances.

ISCO 08 Unit Group Details:

Code 2654

Title Film, Stage and Related Directors and Producers

2654.0351

Live Action Director

Live Action Director establishes and drives the execution of the creative vision of the production with the support of the production, creative and technical teams

Qualification Pack Details:

QP NOS Reference MES/Q 1301

QP NOS Name Live Action

Director

NSQF Level 5

ISCO 08 Unit Group Details:

Code 2654

Title Film, Stage and Related Directors and Producers

2654.0400

Director, Research (Motion Picture, Radio and TV)

Director, Research (Motion Picture; Radio-TV) directs activities of motion picture or television production research department, and conducts research on various subjects to ensure historical authenticity of productions: Researches specific period, locality or historical event to obtain authentic background for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

production, such as customs, speech characteristics, or dress, and architectural style of era. Advises members of production staff on matters relating to historical details of subject being photographed or recorded. Reviews and collects data, such as books, pamphlets, periodicals, and rare newspapers, to provide source material for research. Approves or recommends purchase of library reference materials for department, and co-ordinates activities of workers engaged in cataloguing and filing materials. May translate or request translation of reference materials.

ISCO 08 Unit Group Details:

Code 2654

Title Film, Stage and Related Directors and Producers

2654.0500

Manager, Recreation and Entertainment

Manager Recreation and Entertainment controls, co-ordinates and supervises, within authority delegated, efficient and economic utilisation of men, money and material in public and private organizations, establishment etc., or one or more of its branches or departments, engaged in producing, distributing and exhibiting motion pictures; producing and presenting stage and circus shows; organizing and presenting radio and television broadcasts; operating carnivals and amusement parks; organizing games, hunting, fishing, excursions, competitions, etc., and providing other entertainment and recreation services. Included are: MANAGER, CINEMA. MANAGER, STUDIO. MANAGER, THEATRE. MANAGER, STAGE. MANAGER, CIRCUS MANAGER, VARIETY SHOW. MANAGER AMUSEMENT PARK.

MANAGER, MAGIC SHOW. MANAGER, TOURNAMENT. MANAGER, STADIUM. MANAGER, CLUB. MANAGER, SWIMMING POOL. MANAGER, DANCE HALL. MANAGER, ORCHESTRA. MANAGER, EXHIBITION. MANAGER, CARNIVAL. MANAGER, RACE COURSE. MANAGER, GYMNASIUM.

ISCO 08 Unit Group Details:

Code 2654

Title Film, Stage and Related Directors and Producers

2654.0600

Producer, Stage

Producer, Stage produces dramatic performances based on social, historical and mythological themes, for public entertainment. Studies script, consults Stage Director regarding selection of Actor and Actress and suitable costumes for proper stage performance. Visits various places and arranges for stage performances. Arranges rehearsals. May also function as Stage Director. May also act in absence of any Actor.

ISCO 08 Unit Group Details:

Code 2654

Title Film, Stage and Related Directors and Producers

2654.0700

Producer, Film

Producer, Film; Motion Picture Producer, produces motion picture films of selected nature for public entertainment. Studies script, consults Film Director and ensures proper settings of studio. Co-ordinates activities of Film Director, Actors and Actresses, Cameraman, Music Director and Sound Recordist, etc., for proper production of films. Maintains

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

liaisons with Film Distributors for display of films in different picture houses. May also function as Film Director.

ISCO 08 Unit Group Details:

Code 2654
Title Film, Stage and Related Directors and Producers

2654.0800

Production Manager (Motion Picture)

Production Manager (Motion Picture) assists Producer Film in co-ordinating and controlling production of motion picture. Estimates time required and prepares time schedule for each stage of production of motion picture i.e. from story and script to shooting and printing of final copy of film in relation to manpower, equipment, facilities for shooting and processing of films, available. Arranges for advance hiring of studios and processing laboratories, if independent facilities not available. Conducts location surveys for outdoor shooting. Ensures supply of costumes, draperies, decorations etc., required for set at appropriate time, from own stock or hiring from other sources. Makes travel arrangement for units for out-door shooting. Maintains constant liaison with Director Theatrical, Artists and others involved.

ISCO 08 Unit Group Details:

Code 2654
Title Film, Stage and Related Directors and Producers

2654.0901

Lighting Artist

Lighting Artist needs to add light and shadows to the production in accordance to the established creative style

Qualification Pack Details:

QP NOS Reference MES/Q 0404
QP NOS Name Lighting
Artist
NSQF Level 4

ISCO 08 Unit Group Details:

Code 2654
Title Film, Stage and Related Directors and Producers

2654.9900

Stage and Film Directors, Other

Stage and Film Directors, Other include all Other Stage and Film Directors engaged in directing and producing dramas, motion pictures of stage and television shows not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2654
Title Film, Stage and Related Directors and Producers

Family 2655

Actors

Actors portray roles in motion pictures, television or radio productions and stage shows.

2655.0100

Actor and Actress

Actor and Actress play roles in dramatic, cinema, radio and television productions portraying characters and events by gestures or other actions. Rehearses frequently roles assigned and memorizes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

dialogues or actions to be portrayed, Puts on required dress and make-up. Acts or plays assigned role either before audience or before filming camera. Portrays different characters by dialogues, gestures and impersonation. May sing or dance.

ISCO 08 Unit Group Details:

Code	2655
Title	Actors

2655.0200

Extra

Extra plays minor roles in dramatic or film production for maintaining continuity of story. Obtains instructions from Manager or Director, Theatrical regarding part to be played. Puts on appropriate costumes and make-up and plays assigned role. May perform different roles in same play. May perform both serious and humorous roles. May perform other duties such as prompting, setting of stage etc. NATIONAL CLASSIFICATION OF OCCUPATIONS

ISCO 08 Unit Group Details:

Code	2655
Title	Actors

2655.0301

Voice over Artist

Voice over Artist needs to provide the voice for characters in various productions

Qualification Pack Details:

QP NOS Reference	MES/Q0101
QP NOS Name	Voice-over
Artist	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	2655
Title	Actors

Family 2656

Announcers on Radio, Television and Other Media

Announcers on Radio, Television and Other media read news bulletins, conduct interviews, and make other announcements or introductions on radio, television, and in theatres and other establishments or media.

2656.0100

Programme Announcer

Programme Announcer announces radio programmes over radio broadcasting systems. Obtains relevant background information concerning the programme, to be broadcast and prepares material for announcement, pinpointing essential and interesting aspects of the programme and obtains its approval. Introduces broadcasting programme in accordance to set procedure. May be designated as News Reader if solely engaged in announcing edited news bulletins or Compere Programme if engaged in compering radio or television programmes.

ISCO 08 Unit Group Details:

Code	2656
Title	Announcers on Radio, Television and Other Media

2656.0200

Disc Jockey

Disc Jockey announces radio programmes of musical selections. Selects phonograph or tape recording to be played based on programme specialty, knowledge of audience taste, or listening audience

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

requests. Comments on music and other matters of interest to audience, such as weather, time, or traffic conditions. May interview musical personalities. May interview members of listening audience who telephone for musical requests. May specialize in any one type of music, such as classical, pop, rock, or folk and western. May write entries into log to provide information on all elements aired during broadcast, such as musical selections and station promotions.

ISCO 08 Unit Group Details:

Code 2656

Title Announcers on Radio, Television and Other Media

2656.9900

Radio, Television and Other Announcers, Other

Radio, Television and Other Announcers, Other include other associate professionals who read news bulletins, conduct interviews, and make other announcements or introductions on radio, television or in theatres and other establishments not elsewhere classified.

ISCO 08 Unit Group Details:

Code 2656

Title Announcers on Radio, Television and Other Media

Family 2659

Creative and Performing Artists, Not Elsewhere Classified

This unit group covers all creative and performing artists not classified elsewhere. For instance, the group includes clowns, magicians, acrobats and other performing artists.

2659.0100

Rope Dancer

Rope Dancer; Rope Balancer; Aerialist performs feats by walking, dancing, cycling, balancing on wire or rope stretched between two posts. Checks wire rope tied to posts are drawn to required tautness. Climbs pole or positions on attached platform to step over rope or wire with necessary aid such as umbrella or long pole for purpose of balancing. Walks, runs or rides cycle, singly or in pairs from one end to other end of rope and vice versa and performs other feats to entertain audience.

ISCO 08 Unit Group Details:

Code 2659

Title Creative and Performing Artists
Not Elsewhere Classified

2659.0200

Acrobat

Acrobat entertains audience by performing difficult and spectacular gymnastic feats such as jumping, tumbling, balancing, alone or as member of team. Performs different feats and tricks displaying physical strength, skill and agility such as somersault on ground or on bar, balancing on different postures on ground or on bar with various movements of legs, hands and body, swinging and revolving round bar in various directions, leaping from bar to bar in different directions and postures, balancing other persons or weighty materials in different postures on hands, legs, shoulders, head, etc. May display feats in accompaniment of orchestra, drum, flute, etc. May give training in gymnastics to others.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 2659
Title Creative and Performing Artists
Not Elsewhere Classified

2659.0300

Equestrian

Equestrian; Circus Rider entertains audience by riding horses at circus, carnivals, exhibition, or horse show performing acrobatic stunts on saddle less horse or feats of equestrian skill and daring. Rides horse with or without saddles and reins, performing feats such as mounting and riding a horse while galloping, standing on its back, changing position from one to another horse, riding with one leg on back of one horse and another on other and performing other astonishing feats of skill and daring. May train horses in new and novel feats.

ISCO 08 Unit Group Details:

Code 2659
Title Creative and Performing Artists
Not Elsewhere Classified

2659.0400

Contortionist

Contortionist entertains audience by performing feats requiring abnormal bodily contortions. Wears appropriate dress exposing parts of body and muscles to be displayed. Forces muscles out of normal shape by bending and twisting them or any part of body. Performs feats relating to bodily deformation such as making wheel of body, abnormal expansion of any portion of body for amusement of audience.

ISCO 08 Unit Group Details:

Code 2659

Title Creative and Performing Artists
Not Elsewhere Classified

2659.0500

Circus Performers, Other

Circus Performer performs various speciality acts, based on some uniquely developed talent, tricks of illusion and spectacular physical feats in circuses and on theatrical stages. Entertains audiences through comedy, mimicry, actions etc.

ISCO 08 Unit Group Details:

Code 2659
Title Creative and Performing Artists
Not Elsewhere Classified

2659.0600

Ventriloquist

Ventriloquist entertains audience by producing through own vocal chords speeches, voices and sounds to imitate other human beings, animals, birds etc. Appears on stage and announces voices or sounds of objects to be imitated. Speaks or produces sound in such manner that voice appears to come from source other than own vocal chords. May entertain audience by speaking in manner that voice appears to come from dummy or hand puppet displayed during performance.

ISCO 08 Unit Group Details:

Code 2659
Title Creative and Performing Artists
Not Elsewhere Classified

2659.0700

Buffoon; Clown

Buffoon; Clown entertains audience by appearing in clown costume and make-up and performing original or stock comedy

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

routines. Paints face with bright colours and wears funny costumes to draw attention and laughter from audience on appearance on stage or platform. Makes amusing tricks, ludicrous gestures and comic actions to suit occasion to amuse audience and enliven other items of show or play. May perform or imitate acrobatic feats of star performers in circus fairs carnivals or otherwise substitute artists where necessary.

ISCO 08 Unit Group Details:

Code 2659

Title Creative and Performing Artists
Not Elsewhere Classified

2659.0800

Mimic

Mimic entertains audience by impersonating another person or type of person, copying dress, voice, expression, mannerisms, exaggerating and ridiculing character imitated. Studies expressions mannerisms dresses, voice or speech of renowned persons selected for mimicking. Dresses, acts, talks and makes gestures similar to persons impersonated depicting peculiarities comically and ridiculously. Imitates animal voices, moving train or sound of character or thing impersonated. May cut jokes with audience to entertain them.

ISCO 08 Unit Group Details:

Code 2659

Title Creative and Performing Artists
Not Elsewhere Classified

2659.0900

Magician

Magician; Wizard; Jadugar performs original and stock tricks of illusion and sleight of hand to entertain and mystify

audience. Displays articles such as sticks, cards, balls, and rings on table placed on stage. Performs amazing tricks by sleight-of-hand to turn stone into flowers, fruits, sweets, etc., thrusting stick into nose, swallowing iron balls and taking them out, changing colour of cards, making inanimate objects animate, pulling out bird animals etc., from empty bags or hats etc. May use members of audience in act and remove their valuables, such as jewellery, walks, or watches without their knowledge. May hypnotise audience to create illusion in their minds of objects or things shown or disappeared.

ISCO 08 Unit Group Details:

Code 2659

Title Creative and Performing Artists
Not Elsewhere Classified

2659.1000

Juggler

Juggler juggles and balances, objects such as balls, rings, bottles, cylinders, knives, plates and hats, to entertain audience. Arranges objects such as balls, rings, and plates, on table or ground. Takes objects one by one and throws them high up in quick succession and catches them while falling without dropping them on floor and performs various other feats of jugglery for amusement of audience. May use sharp weapons such as knives, spears to exhibit skill in performance. May perform, feats in solo, in pairs, or team.

ISCO 08 Unit Group Details:

Code 2659

Title Creative and Performing Artists
Not Elsewhere Classified

2659.1100

Snake Charmer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Snake Charmer plays pipe music (Pungi or Been) before snakes (Cobras) to raise their hoods to swing to and fro to entertain audience for consideration. Catches snakes from their hideouts and removes their fangs to make them harmless. Keeps snakes in covered baskets and exhibits them in fairs or other public places by playing music to entertain spectators for rewards. May help to catch snakes from public places and private houses on request for reward. May keep and train Mongoose to play with snakes for entertaining public.

ISCO 08 Unit Group Details:

Code 2659

Title Creative and Performing Artists
Not Elsewhere Classified

2659.1200

Puppeteer

Puppeteer; Putliwala originates puppet show and moves strings or wires of puppets to animate them for entertainment of audience. Carves or shapes parts of puppet, such as head, hands, and arms, from materials such as wood, plaster, or papier Mache. Sews together articles of clothing and assembles puppets using wire string and hand tools. Moves bar to which strings or wires are attached from position above stage to control movement of puppets during performance. Talks or sings during performance, giving illusion of voice to puppet.

ISCO 08 Unit Group Details:

Code 2659

Title Creative and Performing Artists
Not Elsewhere Classified

2659.1300

Trainer, Animal

Trainer, Animal trains wild or domesticated animals and birds such as lions, tigers, bears, elephants, dogs, horses, pigeons and other birds to obey and perform tricks as pets or for entertainment of audience at circus or other exhibition. Rears young animals and birds and studies their characteristics and behaviour to learn how they should be handled and to detect signs of sickness. Teaches them to obey duties or perform tricks by verbal command or signal, evaluating their ability and performance. Directs animals or birds to perform tricks in circus ring, stage or at other exhibition. Supervises workers engaged in feeding, exercising and general care of them. May train dogs to lead people with visual impairment and to be watchdogs. May be designated according to type of animal trained as ELEPHANT TRAINER, LION TRAINER, BANDAR WALA, REECH WALA.

ISCO 08 Unit Group Details:

Code 3435

Title Other Artistic and Cultural
Associate Professionals

2659.1400

Race Horse Trainer

Race Horse Trainer trains horses for racing, following plans adapted to peculiarities to each horse. Studies characteristics of horses by riding to learn how they should be handled and trained for respective race events after consulting owner and Jockey. Familiarise horses with race track starting device, harness, bridles, saddles and other riding equipment. Conditions horses for competitive racing by exercise and workouts to bring them to their best physical condition. Gives direction to stablemen and other workers engaged in grooming, feeding and general

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

care of horses. Assists Jockey to saddle horse prior to racing event. May attend to minor ailments of horses and prescribe feed or medicine.

ISCO 08 Unit Group Details:

Code 3435

Title Other Artistic and Cultural Associate Professionals

Division 3

Technicians and Associate Professionals

Technicians and Associate Professionals perform mostly technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations.

Tasks performed by Technicians and Associate Professionals usually include: undertaking and carrying out technical work connected with research and the application of concepts and operational methods in the fields of physical sciences including engineering and technology, life sciences including the medical profession, and social sciences and humanities; initiating and carrying out various technical services related to trade, finance, administration, including administration of government laws and regulations, and to social work; providing technical support for the arts and entertainment; participating in sporting activities; executing some religious tasks. Supervision of other workers may be included.

Occupations in this Division are classified into the following Sub Divisions:

31 Science and Engineering Associate Professionals

32 Health Associate Professionals

33	Business and Administration Associate Professionals
34	Legal, Social, Cultural and Related Associate Professionals
35	Information and Communications Technicians

Sub Division 31

Science and Engineering Associate Professionals

Science and Engineering Associate Professionals perform technical tasks connected with research and operational methods in science and engineering. They supervise and control technical and operational aspects of mining, manufacturing, construction and other engineering operations, and operate technical equipment including aircraft and ships

Tasks performed by workers in this sub-major group usually include: setting up,, monitoring and operating instruments and equipment, conducting and monitoring experiments and tests of systems; collecting and testing samples; recording observations and analysing data; preparing, revising and interpreting technical drawings and diagrams; co-ordinating, supervising, controlling and scheduling the activities of other workers; operating and monitoring switchboards, computerized control systems, and multi-function process control machinery; perform technical functions to ensure safe and efficient movement and operations ships aircraft and other equipment.

Occupations in this Sub Division are classified into the following Groups:

311 Physical and Engineering Science Technicians

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

312	Mining, Manufacturing and Construction Supervisors
313	Process Control Technicians
314	Life Science Technicians and Related Associate Professionals
315	Ship and Aircraft Controllers, and Technicians

Group 311 Physical and Engineering Science Technicians

Physical and Engineering Science Technicians perform technical tasks to aid in research on and the practical application of concepts, principles and operational methods particular to physical sciences including such areas as engineering, technical drawing or economic efficiency of production processes.

Occupations in this Group are classified into the following Families:

3111	Chemical and Physical Science Technicians
3112	Civil Engineering Technicians
3113	Electrical Engineering Technicians
3114	Electronics Engineering Technicians
3115	Mechanical Engineering Technicians
3116	Chemical Engineering Technicians
3117	Mining and Metallurgical Technicians
3118	Draughtspersons
3119	Physical and Engineering Science Technicians, Not Elsewhere Classified

Family 3111

Chemical and Physical Science Technicians

Chemical and Physical Science Technicians perform technical tasks to aid in research in chemistry, physics, geology, geophysics, meteorology and astronomy, and in the development of industrial, medical, military and other practical applications of research results.

3111.0100 Laboratory Assistant, Physical

Laboratory Assistant, Physical assists and carries out routine duties in physical laboratory as directed by physicist in conducting experiments. Sets up required apparatus and instruments in position as directed for conducting experiments and research work. Makes necessary electrical connection to equipment and instruments as required. Records routine and other observations as indicated by instruments and makes necessary calculations as directed. Removes apparatus when not in use, cleans and maintains them in good condition. May do minor repairs to equipment and apparatus. May store and maintain account of instruments, equipment, apparatus etc., if required.

ISCO 08 Unit Group Details:

Code 311
Title Physical and Engineering Science Technicians

3111.0200 Laboratory Assistant, Soil

Laboratory Assistant, Soil sets up apparatus and equipment, conducts routine soil tests in laboratory for determining soil characteristics to correct soil defects, raise fertility, etc. and assists

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Soil Scientist or Chemist as required. Collects samples of required type of soil. Gets them dried in oven and sieved to get soil of required size. Weighs fixed quantities of soil, sets apparatus and conducts routine tests to determine their physical and chemical properties, such as shear strength, permeability, composition, water content, percentage of nitrogen etc. Adds or eliminates chemicals and salts from soil as directed by Soil Technologist or Chemist to remove defects, raise fertility etc. to render better yield. Maintains record of reading and observations, for calculating and reference purposes. Prepares standard chemicals and solutions required for testing samples and maintains laboratory clean and tidy.

ISCO 08 Unit Group Details:

Code 311
Title Physical and Engineering Science Technicians

3111.0300 Laboratory Assistant, Chemical

Laboratory Assistant, Chemical arranges and sets various chemicals, instruments and apparatus such as salts, acids, balances, heaters as desired by Chemists for conducting experiments in chemical laboratory. Sets up required apparatus and equipment as directed by Chemist. Performs routine tasks, such as preparations of standard solutions and common reagents, weighing and measuring of salts and chemicals, filtration, precipitation etc. and conducts simple tests as directed by Chemist. Cleans and maintains balances. Changes Kipps apparatus and maintains laboratory clean and tidy. Keeps required chemicals readily available and replenishes stock

from stores. May clean special apparatus, if required.

ISCO 08 Unit Group Details:

Code 311
Title Physical and Engineering Science Technicians

3111.0400

Chemical Radiation Technician

Chemical-Radiation Technician tests materials and monitors operations of nuclear-powered electric generating plant, using specialized laboratory equipment and chemical and radiation detection instruments. Collects samples of water, gases, and solids at specified intervals during production process, using automatic sampling equipment. Analyses materials, according to specified procedures, to determine if chemical components and radiation levels are within established limits. Records test results and prepares reports for review by supervisor. Assists workers to set up equipment and monitors equipment that automatically detects deviations from standard operations. Notifies personnel to adjust processing equipment, quantity of additives, and rate of discharge of waste materials, when test results and monitoring of equipment indicate that radiation levels, chemical balance, and discharge of radio nuclide materials are in excess of standards. Carries out decontamination procedures to ensure safety of workers and continued operation of processing equipment in plant. Calibrates and maintains chemical instrumentation sensing elements and sampling system equipment, using hand tools.

ISCO 08 Unit Group Details:

Code 311

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Physical and Engineering Science Technicians

3111.0500 Laboratory Assistant, Geological

Laboratory Assistant, Geological sets and arranges apparatus and equipment in geological laboratory for conducting tests or experiments on rocks, ores, minerals etc. to determine location, structure, composition, percentage and specific gravity of mineral present and other necessary details. Arranges microscopes and sets necessary equipment for microscopic study of minerals. Cuts sections of rocks and mineral with diamond and special tools as required, for study of formation of rocks percentage and quality of mineral composition etc. Prepares micro sections of required thickness of rocks or by cutting rocks with special cutting tools and grinding sections over special grinders. Mounts sections on slides for microscopic examinations. Displays minerals, models, crystals etc. in museum giving correct descriptive nomenclatures. Accompanies students Geologists on excursions and assists them in collecting minerals, rocks, fossils etc. and classifying. May perform simple chemical tests on rock, minerals, etc. under guidance of Geologist and report observations to him. May maintain stores and laboratory equipment.

ISCO 08 Unit Group Details:

Code 311
Title Physical and Engineering Science Technicians

3111.0600 Slide Examiner, Petrology

Slide Examiner, Petrology examines slides under polarising petrological microscope

to identify and determine percentage of minerals present in rock. Studies texture of rock for its identification. Studies nature, petrogenesis (origin), petrography (identification), Para genesis (age determination), and other lithological aspects of rocks, minerals and ores and determines economic possibilities of minerals present in rock using microscope. Prepares suitable charts, tables for recording results of examination.

ISCO 08 Unit Group Details:

Code 311
Title Physical and Engineering Science Technicians

3111.0700 Slide Examiner, Palaeontology

Slide Examiner, Palaeontology collects rock samples and fossils and examines them under microscope to identify and record their lithology (composition of stones and rocks) and other characteristics. Collects rock samples and fossils and examines them under microscope. Studies fossil characteristic and discusses lithology of fossiliferous rocks. Maintains rockslides and records data and frequency of occurrence of various fossils belonging to different geological horizons on prescribed charts to correlate findings and compile reports.

ISCO 08 Unit Group Details:

Code 311
Title Physical and Engineering Science Technicians

3111.9900 Physical Science Technicians, Other

Physical Science Technicians, other include workers performing technical

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

tasks such as setting of apparatus in physical science laboratories, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 311
Title Physical and Engineering Science Technicians

Family 3112 Civil Engineering Technicians

Civil Engineering Technicians perform technical tasks in civil engineering research, design, construction, operation, maintenance and repair of buildings and other structures, such as water supply and wastewater treatment systems, bridges, roads, dams and airports.

3112.0100 Overseer, Civil Engineering

Overseer, Civil Engineering supervises construction of buildings, roads, canals, dams, airfields, drainage systems, etc. according to specifications and attends to their repair and maintenance under guidance of Engineer In Charge. Receives drawings and instruction from Engineer In Charge and studies them. Inspects site, prepares rough estimates and get them approved by senior officer. Undertakes contour surveys and conducts levelling operations. Marks lay out according to plan and instructions of Engineer In Charge, and commences work under his guidance and supervision. Checks materials and work frequently at every stage of construction to ensure their conformity with prescribed specifications. Measures completed portion of work and gets them checked and approved by the engineer concerned. Maintains accounts of departmental work and records of day

to day measurements, labour engaged, materials used, etc. Gets-wage-bills of work charged establishment prepared. May prepare sketches, drawings, if necessary. May arrange plantation of road side trees and their maintenance.

ISCO 08 Unit Group Details:

Code 3112
Title Civil Engineering Technicians

3112.0200 Permanent Way Inspector

Permanent Way Inspector maintains railway track in his jurisdiction in satisfactory and safe working condition by inspecting it regularly and getting necessary repairs carried out immediately. Inspects railway track under his charge regularly to ensure that track bridges and other structures are in good condition for safe traffic. Supervises repairing of railway track by getting worn out sleepers, rails replaced, and stone ballast spread on track. Arranges for storage of required materials such as sleepers, rails, nuts, bolts, working tools etc. Arranges for patrol of track during rains, snowfalls, floods etc. Reports to superior major damages to track, due to accidents, floods, etc. Supervises laying of diversion track and speedy restoration of permanent track. Ensures that land on either side of railway line are not illegally encroached and reports to superiors about the cases of encroachment, if any, for voluntary or legal settlement. Maintains record of work done, sends periodical reports to superiors and arranges to keep accounts of payment of staff. May attend to laying of new rail track.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 3112
Title Civil Engineering
Technicians

3112.0300

Plain Tabler

Plain Tabler; Ground Surveyor prepares topographical and cadastral (ground) maps based on control points fixed by Surveyor, Topographical by plane tabling method (field operations involving use of plane-table, clinometers, magnetic compass, sight rule, etc.). Plots points in drawing conforming to points on ground using plane table and sight rule, in hills and planes with accuracy. Registers colour and light traces in drawings, project maps, flood surveys, cadastral surveys, etc. Visits area to be surveyed and carries out plotting, sketching, contouring, drawing etc. of territory on basis of control data and other relevant available material. Collects, records and interprets air photographs which lack in such details as small bridges, streams, rivulets, tracks or pillars on account of non-visibility from photographic distances.

ISCO 08 Unit Group Details:

Code 3112
Title Civil Engineering
Technicians

3112.0400

Topographical Auxiliary

Topographical Auxiliary participates in field survey by traversing (computing direct distances) levelling, rectangulation (determining a point from four ends) recording angular and liner measurements and comparing readings with

Code 3112
Title Civil Engineering Technicians

3112.0500

Computer Topographical

Computer, Topographical, Computer Geodetic computes topographical data received from survey parties in connection with figure, shape and structure of earth for mapping. Carries out calculations using mathematical forms and tables, concerning geographical field, e.g. geomagnetism, gravity reduction tidal analysis and prediction, etc. for guidance of surveyors. Computes value of control points (longitudes and latitudes) established on ground. Works out and fixes triangulation of points (angles in relation to fixed locations) and of survey parties and guides survey parties to possible errors in establishing control points or triangulations of certain location. May use and construct mathematical table. May be known as Trigonometrical Computer according to degree of responsibility.

ISCO 08 Unit Group Details:

Code 3112
Title Civil Engineering Technicians

3112.0600

Surveyor, Tidal

Surveyor, Tidal prepares charts of tidal behaviour in particular region of sea or harbour for each year of coming five years. Sets tidal machine on sea for automatic registering of both high and low tides in graphic form. Interprets, computes and feeds data to time prediction machine to record tidal frequency, depth, strength and volume of each year.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 3112
Title Civil Engineering Technicians

3112.0701 **Assistant Laboratory and Field Technician**

Assistant Laboratory and Field Technician works in permanent, field and site laboratories. He is responsible to organize and arrange the sample collection from field or site and conduct the desired tests in laboratory as and when required either in field or permanent location utilizing the help and services of level-1 Technician under him.

Qualification Pack Details:

QP NOS Reference CON/Q0402
QP NOS Name Assistant Laboratory and Field Technician
NSQF Level 2

ISCO 08 Unit Group Details:

Code 3112
Title Civil Engineering Technicians

3112.9900 **Civil Engineering Technicians, Other**

Civil Engineering Technicians, other includes all other Civil Engineering Technicians engaged in construction, survey, and related fields of civil engineering, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3112
Title Civil Engineering Technician

Family 3113

Electrical Engineering Technicians

Electrical Engineering Technicians perform technical tasks to aid in electrical engineering research, and in the design, manufacture, assembly, construction, operation, maintenance and repair of electrical equipment, facilities and distribution systems.

3113.0101 **Electrical Engineering, Technician/Maintenance Technician Electrical**

Electrical Engineering, Technician; Overseer, Electrical Engineering receives instructions from senior engineer, studies blue print and working details and directs workers for proper execution of duties allotted. Receives instructions verbally or from duty chart, studies blueprints and working instructions as necessary and determines method of work to be adopted. Instructs workers such as Electricians, Electrical Fitters, Turbine Operator, Switch Board Operators, Lines Men etc. and supervises their work. Ensures correct manufacture and stipulated performance of equipment, or scheduled generation and supply of electricity, etc. according to nature of work in which employed. Checks production, alterations or repairs using instruments such as voltmeter, ammeter, megger, etc. and has any defects corrected. Maintains prescribed records. May undertake complicated installation, maintenance and allied work personally to avoid mistakes and to train workers under him. May be designated as Shift Engineer, Power House; Maintenance Engineer, Electrical etc., according to nature of duties performed.

Qualification Pack Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Reference	ASC/Q6803
QP NOS Name	Maintenance
	Technician Electrical
	Level 4

NSQF Level 4

QP NOS Name	Technician Furnace
	Transformers: Ferro
	Alloys

NSQF Level 4

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians

3113.0102 **Maintenance Technician Electrical**

Maintenance Technician Electrical is responsible for providing assistance to the maintenance technicians in maintaining the Electrical/electronic systems of equipment and machinery.

Qualification Pack Details:

QP NOS Reference	ASC/Q6804
QP NOS Name	Maintenance
	Technician Electrical

NSQF Level 3

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians

3113.0111 **Technician Furnace Transformers: Ferro Alloys**

Technician Furnace Transformers: Ferro Alloys maintains furnace transformers involved in Ferro Alloy operations. This includes main receiving sub-station and furnace transformers (both HT and LT).

Qualification Pack Details:

QP NOS Reference ISC/Q1103

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians

3113.0200

Electrical Technician (High Voltage)

Electrical Technician (High Voltage) draws up specifications and instructions for installation of voltage transformers, overhead or under-ground cables and related electrical equipment used, to conduct electrical energy from transmission lines or high-voltage distribution lines to consumers. Studies work order to determine type of service, such as lighting or power for installation. Visits site of proposed installation and draws rough sketch of location. Takes measurements, such as street dimensions, distances to be spanned by wire and cables or space available in existing buildings and underground vaults which affect installation and arrangement of equipment. Estimates materials, equipment and incidentals needed for installation. Draws master sketch-showing relation of proposed installation to existing facilities. Makes other sketches pertaining to wiring connections or cross sections of underground cables, as required for instructions to installation crew. Consults Distribution Engineer on difficulties encountered. May draft sketches to scale. May estimate labour and material costs, using price lists and records on previous projects. May inspect completed installation of electrical equipment and related building circuits to verify conformance with specifications.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians

3113.0300 Energy Auditor

Energy Auditor inspects homes of utility company customers to identify conditions that cause energy waste and suggests actions to reduce waste. Interviews customer to obtain data relating to household energy use, such as type of heating system, number of persons at home during day and prior heating costs. Draws sketch of house, measures house perimeter, windows, and doors, using tape measure, and records dimensions on sketch for use in heat-loss calculations. Inspects areas of house, such as attics, crawl spaces, and basements, and notes conditions that contribute to energy waste, such as loose-fitting windows, uninsulated pipes, and deficient insulation. Reads geyser to ascertain tank heat-loss rating and determine need for tank insulation blanket. Confers with customer and recommends action to be taken to reduce energy waste, such as weather-stripping, reducing hot water temperature setting, and adding insulation. Gives customer pamphlets describing energy conservation improvements. Calculates area of windows and house volume, using calculator, and records results on computer input form to provide data for computer calculation of heat-loss estimates that are sent to customer.

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians

3113.0401

Machine Maintenance Technician

Machine Maintenance Technician is responsible for maintaining equipment and electrical systems used in the production process within factory premises. The individual at work undertakes preventive maintenance of machines as per the maintenance schedule and attends to any breakdown complaints raised by the production or testing departments.

Qualification Pack Details:

QP NOS Reference	ELE/Q3701
QP NOS Name	Machine Maintenance Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians

3113.0501

Maintenance Executive

Maintenance Executive handles routine, preventive and breakdown maintenance of machines on the shop floor, thereby, ensuring trouble free production. The individual at work carries out scheduled maintenance of machines used on shop floor using manufacturers' manual and as per training given by manufacturer in order to have zero un-scheduled downtime.

Qualification Pack Details:

QP NOS Reference	ELE/Q2501
QP NOS Name	Maintenance Executive

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 4

ISCO 08 Unit Group Details:

Code 3113
Title Electrical Engineering Technicians

3113.0601

Maintenance Technician

Maintenance Technician is responsible for maintaining and repairing machines, equipment and electrical systems installed at the factory premises. The individual at work undertakes periodical preventive maintenance of machines as per the set schedule for the electrical and mechanical systems installed in the factory. The individual is also responsible for attending to any breakdown and repairs to restore temporary or permanent functioning or call expert for significant down time problems.

Qualification Pack Details:

QP NOS Reference ELE/Q4501
QP NOS Name Maintenance Technician
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3113
Title Electrical Engineering Technicians

3113.0701

Customer Inspection Technician

Customer Inspection Technician carries out functional, environmental, safety and ruggedness tests of the final product in the presence of the customer, in order to approve for dispatch. The individual at work demonstrates the functioning of the final product manufactured to the customer and gets an approval for dispatch.

Qualification Pack Details:

QP NOS Reference ELE/Q6501
QP NOS Name Customer Inspection Technician
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3113
Title Electrical Engineering Technicians

3113.0801

In-process and Final Quality Engineer

Quality Engineer and Final Quality Engineer ensures that quality standards are followed during the assembly process and at the final stage before dispatch. The individual at work sample checks final PCB assembly for functional conformance as well as visually before they are packed and dispatched. The individual is responsible for ensuring total quality or IPC or ISO standards compliance during the assembly of PCBs.

Qualification Pack Details:

QP NOS Reference ELE/Q5501
QP NOS Name In-process and Final Quality Engineer
NSQF Level 5

ISCO 08 Unit Group Details:

Code 3113
Title Electrical Engineering Technicians

3113.0802

Final Testing Technician

Final Testing Technician inspects assembled or PCBs to check conformance with specified standards. The individual at work is responsible for testing completed

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

PCB assemblies to ensure that they performance as per specifications.

Qualification Pack Details:

QP NOS Reference	ELE/Q5402
QP NOS Name	Final Testing Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical
Engineering Technicians	

3113.0803

Automated Optical Inspection Machine Operator

Automated Optical Inspection Machine Operator is also called 'AOI Inspector'; the Automated Optical Inspection (AOI) Machine Operator conducts non-contact tests on bare board and assembled printed circuit boards (PCB) at different stages of PCB assembly. The individual at work is responsible for testing the PCB at several stages of assembly by using the AOI machine as well as conducting a visual inspection to check for scratches, stains, open, short, thinning solder, missing components, incorrect components and incorrect placing of components – that is parts with limited or known variations.

Qualification Pack Details:

QP NOS Reference	ELE/Q5401
QP NOS Name	AOI Machine Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical
Engineering Technicians	

3113.0901

Cluster In Charge

Cluster In Charge needs to ensure increase in site uptime and reduce energy cost; monitor preventive maintenance, corrective maintenance and on-site repair, through regular site visits and audits; maintain hygiene of the tower site; train site technicians; develop healthy relationship with landlords and vendors; handle all types of issues/fault on site and control other operational expenses.

Qualification Pack Details:

QP NOS Reference	TEL/Q4101
QP NOS Name	Cluster In Charge
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians

3113.1001

LED Luminaries Testing and Measurement Technician

LED Luminaries Testing and Measurement Technician is responsible for testing LED luminaries using different testing equipment. The individual at work performs various tests on LED luminary product to check specified parameters for verifying its performance against quality standards.

Qualification Pack Details:

QP NOS Reference	ELE/Q9301
QP NOS Name	LED Luminaries Testing and Measurement
NSQF Level	4

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians

3113.1002

LED Light Repair Technician

LED Light Repair Technician is responsible for mending the non-functional LED light. The individual at work checks the non-functional LED light in a systematic manner to find out the fault; dismantles it; repairs the fault and reassemble the light to make it functional.

Qualification Pack Details:

QP NOS Reference	ELE/Q9302
QP NOS Name	Led Light Repair Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical Engineering Technicians
	3113.9900

Electrical Technicians, Other

Electrical Technicians, Other include all other Electrical Technicians engaged in research and testing in various fields of electrical engineering, not elsewhere classified.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code	3113
Title	Electrical
Engineering Technicians	

Family 3114

Electronics Engineering Technicians

Electronics Engineering Technicians perform technical tasks to aid in electronic research, and in the design, manufacture, assembly, construction, operation, maintenance and repair of electronic equipment.

3114.0100

Electronics Technician

Electronics Technician applies electronic theory, principles of electrical circuits, electrical testing procedures, engineering mathematics, physics and related subjects to layout, build, test; troubleshoot, repair and modify developmental and production electronic equipment such as computers, missile control instrumentation and machine tool numerical controls. Draws sketches to clarify design details and functional criteria of electronic units. Assembles experimental circuitry (bread board) or complete prototype model according to engineering instructions, technical manuals and knowledge of electronic systems and components and their functions. Recommends changes in circuitry or installation specifications to simplify assembly and maintenance. Sets up standard test apparatus or contrives test equipment and circuit, and conducts functional, operational, environmental and life tests to evaluate performance and reliability of prototype or production model. Analyses and interprets test data. Adjusts, calibrates, aligns and modifies circuit and components and records effects on unit performance. Writes technical reports and develops charts, graphs and schematics to describe and illustrate systems operating

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

characteristics, malfunctions, deviations from design specifications and functional limitations for consideration by professional engineering personnel in broader determinations affecting systems design and laboratory procedures. May operate bench lathes, drills and other machine tools to fabricate non-procurable items, such as coils, terminal boards and chassis. May check out newly installed equipment in airplanes, ships and structure to evaluate system performance under actual operating conditions. May instruct and supervise lower grade technical personnel

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics and Telecommunications Engineering Technicians

3114.0200

Television Chassis

Inspector/Television Technician

Television Chassis Inspector inspects television receivers during final assembly for defective reception, loose components and incorrect wiring. Connects set to electrical outlet and turns receiver controls, Examines reflection of televised picture in micro for specified horizontal and vertical hold tolerance, picture quality, contrast and lightness. Taps chassis and tubes with cork hammer and observes picture to note flutter that indicates defective components. Examines wiring, soldered joints and splices and shakes components to locate defective connections. Traces wiring to verify connections between specified components and ensures that wires of specified colour codes follow wiring diagram. Marks type of defect requiring further testing adjustment or repair, on face of picture tube. May solder defective

connections and replace defective components.

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics and Telecommunications Engineering Technicians

3114.0601

BSS Support Engineer

BSS/BTS Support Engineer is responsible for ensuring network uptime through preventive maintenance of BSC sites and effective fault management in case of fault occurrence. He also assists field engineers in performing their assigned activities at BTS locations.

Qualification Pack Details:

QP NOS Reference	TEL/Q6200
QP NOS Name	BSS Support Engineer
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics and Telecommunications Engineering Technicians

3114.0701

Field Maintenance Engineer

Field Maintenance Engineer is responsible for co-ordinating with the NOC and transmission team to ensure fault free network through periodic maintenance activities and assisting in fault management in case of fault occurrence at radio locations. He is also responsible for accepting new sites from Projects team and ensuring completion of upgrade/change activities as required.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	TEL/Q6202
QP NOS Name	Field
Maintenance Engineer	
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics
and Telecommunications Engineering Technicians	

3114.0801

ICT Engineer

ICT Engineer is responsible for installing and ensuring uptime of the assigned ICT node/network segment, by undertaking preventive maintenance and fault management activities. The ICT Engineer is also responsible for performing upgrades, capacity augmentation, configuration changes and Point Interconnect testing with minimal disruption of services. The ICT or Information and Communication Technology equipment are NodeB/eNodeB, IP and TDM transmission equipment, IP and Packet Core switch, Cloud and Data Centre equipment

Qualification Pack Details:

QP NOS Reference	TEL/Q6205
QP NOS Name	ICT Engineer
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics and
Telecommunications Engineering Technicians	

3114.0802

ICT Technician

ICT Technician is responsible to maintain the ICT nodes/installations live on 24x7 basis, observe and repair Level-1 faults/issues in installed ICT equipment at site, carry out specified preventive and corrective maintenance procedures and report relevant network incidents to the supervisor in time for information as well as response. ICT or Information and Communication Technology refers to NodeB/eNodeB, IP and TDM transmission equipment, IP and Packet Core switch, Cloud and Data Centre equipment.

Qualification Pack Details:

QP NOS Reference	TEL/NQ6206
QP NOS Name	ICT
Technician	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics and
Telecommunications Engineering Technicians	

3114.0804

Broadband Technician

Broadband Technician is responsible for installation, configuration and testing of CPE (modem, routers and switches) for broadband access. He also establishes connectivity between CPE and end-user device (CPU, Laptop, tablets, Smart/IP TV etc.) at customer premises and carries out basic trouble-shooting for identifying, localizing and rectifying cable, connectivity and equipment fault in co-ordination with NOC.

Qualification Pack Details:

QP NOS Reference	TEL/Q0102
QP NOS Name	Broadband
Technician	

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 4

ISCO 08 Unit Group Details:

Code 3113

Title Electrical Engineering Technicians

3114.0901

Installation Engineer-L2 & L3

Installation Engineer is responsible for installing L2 and L3 equipment in the site and carrying out site acceptance testing. As an optional responsibility the engineer may need to undertake commissioning of the site based on network topology.

Qualification Pack Details:

QP NOS Reference TEL/Q6301

QP NOS Name Installation

Engineer-L2 & L3

NSQF Level 5

ISCO 08 Unit Group Details:

Code 3114

Title Electronics and
Telecommunications Engineering
Technicians

3114.0902

Installation Engineer Installation Engineer-SDH and DWDM

Installation Engineer is responsible for installing SDH and DWDM equipment in the site and carrying out site acceptance testing. As an optional responsibility the engineer may need to undertake commissioning of the site based on network topology.

Qualification Pack Details:

QP NOS Reference TEL/Q6300

QP NOS Name Installation
Engineer-SDH &
DWDM

NSQF Level 5

ISCO 08 Unit Group Details:

Code 3114

Title Electronics and
Telecommunications Engineering
Technicians

3114.1101

Product Specialist Engineer

Product Specialist Engineer is responsible for supporting field teams in prompt restoration of services in case of critical and emergency faults. He also supports roll-out of critical upgrades and new technologies and provides trainings/reading material to ensure competence building in technical staff and customers.

Qualification Pack Details:

QP NOS Reference TEL/Q6204

QP NOS Name Product

Specialist Engineer

NSQF Level 5

ISCO 08 Unit Group Details:

Code 3114

Title Electronics and
Telecommunications Engineering
Technicians

3114.1201

Transmission Engineer

Transmission Engineer is responsible for maintaining uptime and quality of the network (both media and equipment) segment assigned to him by undertaking periodic preventive maintenance activities. He is to also ensure effective fault management in case of fault occurrence and periodically carry out upgrade, capacity augmentation activities

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

as per transmission plan with no/minimal disruption of services.

Qualification Pack Details:

QP NOS Reference	TEL/Q6203
QP NOS Name	Transmission
Engineer	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics and Telecommunications Engineering Technicians

3114.1301

Network Management Engineer

Network Management Engineer is responsible for provisioning of end to end circuit and managing network elements from a Centralized server called Network Management System.

Qualification Pack Details:

QP NOS Reference	TEL/Q6302
QP NOS Name	Network Management Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics and Telecommunications Engineering Technicians

3114.9900

Electronics and Telecommunications Engineering Technicians, Other

Electronics Technicians, Other include all other Electronics Technicians engaged in research and testing in various fields of

electronic engineering, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3114
Title	Electronics and Telecommunications Engineering Technicians

Family 3115 **Mechanical Engineering** **Technicians**

Mechanical Engineering Technicians perform technical tasks to aid in mechanical engineering research, and in the design, manufacture, assembly, construction, operation, maintenance and repair of machines, components and mechanical equipment.

3115.0101 **Mechanical Engineering** **Technician/Supervisor R&D Testing**

Mechanical Engineering, Technicians; Overseer, Mechanical Engineering manufactures, erects, repairs or overhauls tools, equipment, machines, mechanical structure, etc. Receives instructions from appropriate authority. Studies drawings, sketches, specifications, available data, etc. and plans execution of work according to time schedule. Draws necessary stores, examines their suitability, issue them to respective workers or senior mechanic. Instructs them on machine and tools to be used, accuracy required, process of work and other details to ensure correct manufacture, repairs, overhaul or erection work according to type of work to be done. Supervises workers, checks settings of machines, dimensions, dismantling, assembly, adjustments, etc., with appropriate gauges, tools and instruments

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

at different stages of work and guides workers to ensure stipulated performance and accuracy. Checks completed work, makes any necessary adjustments or replacements and gets product approved. Maintains log book and other reports in prescribed form. May prepare sketches. May train workers for better performance. May conduct trade tests for recruitment or promotion of workers. May prepare estimates of materials and cost.

Qualification Pack Details:

QP NOS Reference	ASC/Q6504
QP NOS Name	Supervisor
R&D Testing	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0102

Maintenance Technician-Mechanical

Maintenance Technician-Mechanical is responsible for maintaining the mechanical systems of equipment and machinery. They use laid down procedures, and knowledge of the equipment to conduct routine maintenance and organize repairs. They are also involved in control and monitoring devices and occasionally in the manufacture of items that will help in maintenance.

Qualification Pack Details:

QP NOS Reference	ASC/Q6802
QP NOS Name	Maintenance Technician-Mechanical Level 4

NSQF Level	4
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ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0103

Maintenance Technician Assistant-Mechanical

Maintenance Technician-Mechanical is responsible for providing assistance to the Maintenance Technicians in maintaining the mechanical systems of equipment and machinery.

Qualification Pack Details:

QP NOS Reference	ASC/Q6805
QP NOS Name	Maintenance Technician-Mechanical Level 3
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0104

Body Shop In Charge

Body Shop In charge manages and supervises functioning of Body Shop and manages Body Shop personnel. The individual should maximise profit through the effective operation of the Body shop by satisfying customers' expectations. The individual should promote and develop an environment where the employees can excel. The individual should also maximise the growth of revenue through new customers/accounts.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	ASC/Q1413
QP NOS Name	Body Shop In Charge
NSQF Level	7

according to standard procedures to discover design and fabrication faults. Studies drawings, sketches, specifications set, and installs units such as assemblies, gears, universal joints in testing equipment and machines and connects wiring, tubing, couplings and power sources using hand tools. Operates test equipment and machines to determine factors such as stress, strain, pressure, flow of fuel, oil and air, wear and usability of installed units under conditions of heat, cold, high speeds and load. Conducts investigations into and experimental tests in development of new automotive equipment and accessories to secure more economical operating basis and lowering manufacturing cost. Supervises assembly and repair work, effects necessary modifications and replacements of parts and checks completed assembly for efficiency of performances. Studies in detail costs involved and seeks lighter and stronger metal parts in auto. May specialize in testing or repairs of particular type of auto equipment and accessories.

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0105

Workshop Manager

Workshop Manager is also known as Workshop In charge or Service Manager. A Workshop Manager is responsible for the overall management and service aspects of a workshop. The individual manages repair and maintenance of the vehicles in the workshop and also ensures proper functioning of workshop as per the guidelines of the OEM and manages workshop personnel.

Qualification Pack Details:

QP NOS Reference	ASC/Q1606
QP NOS Name	Workshop Manager
NSQF Level	8

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0201

Automotive Engineering

Technician/Testing Manager

Automotive Engineering Technician sets up and operates equipment to test automobile parts and accessories

Qualification Pack Details:

QP NOS Reference	ASC/Q8405
QP NOS Name	Testing Manager
NSQF Level	7

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0202

Test Engineer Product/Vehicle

Test Engineer Product/Vehicle is responsible for conducting various indoor tests on automobile aggregates like engines, transmission system, braking system, fuel handling system, electrical

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and electronic components, body frames etc. as well as testing of built up vehicle prototypes in a simulated laboratory environment and on road setup, ensuring proper setup of test apparatus, documenting test results and presenting first level analysis report to the Test Manager.

Qualification Pack Details:

QP NOS Reference	ASC/Q8403
QP NOS Name	Test
Engineer Product/Vehicle	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0301

Executive, Proto Manufacturing

Executive, Proto Manufacturing needs to co-ordinate with different departments and functions for manufacturing of prototype vehicle/parts that will finally be used for testing and validation.

Qualification Pack Details:

QP NOS Reference	ASC/Q6501
QP NOS Name	Executive,
Proto Manufacturing	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0401

Method Study Executive

Method Study Executive needs to design, develop, test, and evaluate integrated

systems for managing industrial production processes including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production co-ordination.

Qualification Pack Details:

QP NOS Reference	ASC/Q6401
QP NOS Name	Method
Study Executive	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0501

Manager Maintenance Mechanical and Electrical

Individuals at this job are responsible for maintaining status of continuous running of equipment and machinery. They use computerized systems to oversee routine maintenance and organize repairs. They are also involved in control and monitoring devices and occasionally in the manufacture of items that will help in maintenance.

Qualification Pack Details:

QP NOS Reference	ASC/Q6801
QP NOS Name	Manager
Maintenance Mechanical & Electrical Level 5	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0601

Master Auto Service Technician/Auto Service Technician

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

An Auto Service Technician Level 5 is responsible for managing range of diagnosis and repairs with a wide range of specialized repair of mechanical, electrical and electronic faults.

Qualification Pack Details:

QP NOS Reference	ASC/Q1403
QP NOS Name	Auto Service
Technician Level 5	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.0602

Auto Service Technical Manager/Auto Service Technician

An Auto Service Technician Level 6 is responsible for managing advanced diagnosis and repairs. The individual carries out all types of diagnosis of faults and repairs and is responsible for supervising work of other Technicians/Senior Technicians.

Qualification Pack Details:

QP NOS Reference	ASC/Q1404
QP NOS Name	Auto Service
Technician Level 6	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.1000

Aeronautical Engineering Technician

Aeronautical Engineering Technician; Laboratory Test Mechanic; Test Analyst, Aircraft sets up and operates equipment to test metal aircraft parts, according to standard procedures, to discover faults of design and fabrication. Installs units such as rib, assemblies, struts, landing gears, valves, ducts, universal joints and motors in testing equipment and machines and connects wiring, tubing, couplings and power sources using hand tools. Operates test equipment and machines to determine factors, such as stress, strain, pressure turbulences, velocities, flow of fuel, oil and air, wear and usability of installed units, under conditions of heat, cold, high speeds, torque and load. Measures induced variations from normal with precision instruments such as micrometres, venires, callipers, manometers, pressure gauzes, flow meters, strain gauzes, and dynamometers and records results for analysis by engineering department. May develop devices such as flat patterns, contour templates and forming block, using hand tools and machine tools, to make mechanical, sheet metal and plumbing parts and assemblies for experimental test projects.

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.1100

Heating, Ventilation and Refrigeration Engineering Technician

Heating, Ventilation and Refrigeration Engineering Technician tests efficiency of heating and air-conditioning equipment under stimulated operating conditions. Connects heating and air-conditioning

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

equipment to facilities, such as heating unit, water lines and spray devices, to set up control temperatures and moisture conditions. Constructs cardboard air ducts and other accessories for use in testing equipment. Couples gauges and instruments to system and starts equipment. Observes and records readings of instruments such as thermometers, thermocouples, air flow meters, voltmeters ammeters, and pressure and draft gauges. Informs supervisor of unusual noise and instrument readings during operation of equipment. May plot recorded data.

ISCO 08 Unit Group Details:

Code 3115
Title Mechanical Engineering
Technicians

3115.1200 **Die Designer**

Die Designer develops plans for single stage or progressive stage dies for stamping, forming, forging, or extrusion presses, according to blueprints of product and knowledge of press characteristics and process limitations: Drafts drawings of dies necessary to form complete forging, stamping, or other part. Determines sequence and number of die stages in which single or progressive cutting, punching, and forming will be accomplished, and type of die sets required to produce complete part, based on knowledge of dies, forming processes, and machines. Drafts scale drawings of each die set, delineating contours and dimensions for manufacture of die. Compares part drawings with wood patterns of cast dies to determine correctness of pattern dimensions and form. May observe setup and try out of newly developed die set in production

machine to determine need for redesign or readiness for production use.

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.1301 **Tool Designer**

Tool Room Designer has to interpret the customer requirement of tools and simulate the same using 3D and 2D drawings through various computer aided design tools to create a graphical model on exact specifications for the manufacturing of Tool and Die

Qualification Pack Details:

QP NOS Reference	ASC/Q4001
QP NOS Name	Tool
Designer	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.1302 **Tool Room Supervisor**

Tool Room Supervisor oversees operations of different machine tools performed both manually and through automatic/CNC machines/robots. His role primarily involves supervising all kinds of machining and in-line inspection activities for quality verification. He is also responsible for the various tool assembly processes.

Qualification Pack Details:

QP NOS Reference	ASC/Q4102
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Tool Room
Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.1400

Loco Foreman

Loco Foreman supervises and co-ordinates work of all employees of loco-shed under his charge, inspects loco-engine, gets scheduled repairs carried out, maintains ready required stock of loco-engine and details them according to instructions. Details engine crew for duty according to scheduled. Inspects locomotive before run to ensure that it is equipped with fuel, water and other supplies, and is in perfect running condition, examines locomotives after run by tapping parts such as rods, wheels and bolts with hammer to detect rupture, looseness or cracks. Measures wheel flanges with callipers and depth gauge to detect excessive wear or flat spots, directs or guides Fitter-Loco to undertake minor repairs. Reports major defects to superior officers for replacement of defective or broken stock of fuel such as coal, oil and other material etc. and arranges issues economically. Maintains and equips relief train and attends accidents and joint enquiries. May accompany Driver, Locomotive on special occasions or in emergency.

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.1500

Yard Foreman, Railway

Yard Foreman Railway; supervises and co-ordinates activities of yard staff, engaged in formation and breaking up of goods and passenger trains in marshalling order, according to instructions of Yard Master, and arranges for washing and cleaning of coaches. Ascertains that shift workers report as scheduled, and obtains replacement if necessary. Ensures that all incoming and outgoing trains are properly attended and checked by rolling stock staff 'on duty, as well as stationery stock of empty coaches are kept clear and are properly cleaned and washed. May arrange formation of special trains required for special occasions such as melas, marriages and emergencies.

ISCO 08 Unit Group Details:

Code	3115
Title	Mechanical Engineering Technicians

3115.1600

Train Examiner

Train Examiner examines all trains and ensures that they are fit to run and that they fulfil required conditions. Attends to all incoming and outgoing trains at important railway stations. Supervises work of staff, details them for examination of couplings, wheels, hooks, vacuum pipes etc. of all passenger and goods trains, coaches and parts thereof of important trains using hammer, gauges and other tools to detect mechanical defects or deficiencies, if any. Gets minor defects or deficiencies removed by Fitter Railway Carriage and Waggon and submits fitness certificates or defect report to higher authorities. Detaches coaches which are unsafe for further running or requiring major repairs. Refers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

complicated cases to Head Train Examiner.

data observed during experimentation. May undertake tests in laboratory independently.

ISCO 08 Unit Group Details:

Code 3115
Title Mechanical Engineering Technicians

Code 3116
Title Chemical Engineering Technicians

3115.9900

Mechanical Engineering Technicians, Other

Mechanical Engineering Technicians, other include all other Mechanical Engineering Technicians engaged in manufacture, research, testing and other fields of mechanical engineering, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3115
Title Mechanical Engineering Technicians

3116.0200

Laboratory Assistant, Food and Beverages/Chemist/Analytical Supervisor/Lab Chemist

Laboratory Assistant, Food and Beverages sets equipment and apparatus and conducts routine test of food, drinks and other edible in laboratory to determine their properties, nutritional value, alcoholic contents etc. and to ensure that they conform to prescribed standards or have not been adulterated. Sets and operates required apparatus such as heaters, hydrometers, thermostats, vacuum pumps etc. depending on nature of test and type of material to be tested such as edibles, butter, milk, cold drinks etc. Performs routine tests of food, beverages, drinks and edibles by chemical processes for determining melting points, specific gravity, boiling point, reaction with chemicals and other factors as directed by Chemists or Food Technologist to find their properties, nutritional value, alcoholic contents etc. Ensures that food and beverages tested conform to prescribed standards, as stated on labels. Reports cases of adulteration, fermentation, putrefaction etc. to senior officers. Washes and cleans apparatus, keeps them in safe custody and maintains records as necessary. Keeps laboratory clean and tidy. May prepare standard solution regents and other testing media.

Family 3116

Chemical Engineering Technicians

Chemical Engineering Technicians perform technical tasks to aid in chemical engineering research, and in the design, manufacture, construction, operation, maintenance and repair of chemical plant.

3116.0100

Laboratory Assistant, Glass and Ceramics

Laboratory Assistant, Glass and Ceramics conducts routine tests of silica, clay and other ingredients in laboratories for manufacturing glass and ceramic products. Sets up apparatus required for performing test to determine properties of clay, silica, etc. Prepares solution and reagents. Maintains charts and tables for

ISCO 08 Unit Group Details:

Code 2145
Title Chemical Engineers

3116.0300

Laboratory Assistant, Chemical Engineering General

Laboratory Assistant, Chemical Engineering, General conducts chemical and physical laboratory tests and makes qualitative and quantitative analysis of material for purposes such as development of new products, materials, and processing methods and for maintenance of health and safety standards, working under Biochemists; Chemists, Analytical; Chemists, Inorganic; Chemists, Organic; or Chemists, Physical. Sets up laboratory equipment and instruments, such as ovens, leaching drums, gas cylinders, kilns vacuum chambers autoclaves, pyrometers and gas analyser. Analyses products, such as drugs, plastics, dyes and paints to determine strength, purity and other characteristics of chemical contents. Tests ores, minerals, gases and other materials for presence and percentage of elements and substance, such as Carbon, Tungsten, nitrogen, iron, gold or nickel. Prepares chemical solutions for use in processing materials, such as textile, detergents, paper, felt etc., following standard formulas.

ISCO 08 Unit Group Details:

Code 3116
Title Chemical Engineering Technicians

3116.0400

Core Analyst, Petrol and Natural Gas

Core Analyst, Petrol and Natural Gas analyses cores taken from sub-surface earth formations for porosity, permeability, oil or water saturation, combustible gas content and amount of gas by volume to determine productivity of oil or gas bearing formations. Cleans cores with knife or scraper or breaks off outside surface with hammer to remove drilling fluid deposits. Examines cores under ultra violet light for fluorescence indicating presence of oil. Heats cores in retort, condenses oil or vapours and measures volume of condensates using balance scales and other instruments. Interprets findings to evaluate productive potential of oil or gas bearing formation.

ISCO 08 Unit Group Details:

Code 3116
Title Chemical Engineering Technicians

3116.0500

Laboratory Assistant, Petroleum and Lubricants

Laboratory Assistant, Petroleum and Lubricants; Crude Tester; Oil Tester; Gas Analyst (Petroleum refining) tests and analyses samples of crude oil and petroleum products during processing stages, using laboratory apparatus and testing equipment and following standard test procedures to determine physical and chemical properties and ensures prescribed standards of products manufactured. Tests samples of crude and blended oils, gases, asphalts, and pressure distillates to determine characteristics, such as boiling, vapour, freeze, condensation, flash and aniline points, viscosity, specific gravity, penetration, doctor solution, distillation and corrosion, using test and laboratory equipment, such as hydrometers, fractionators, fractional distillation apparatus and analytical scales.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Analyses contents of products to determine presence of gases, such as propane, isobutane, butane, isopentane, and ethane using appropriate distillation columns. Determines hydro carbon composition of gasolines, blending stocks, and gases using fractional distillation equipment and mass spectrometer. Operates fractional columns to separate crude oil into oils with different boiling points to determine their properties. Analyses composition of products to determine quantitative presence of gum, sulphur, aromatics olefins, water and sediment. Compares colour of liquid product with charts to determine processing factors measurable by colour. Compares tests results with specifications and recommends processing changes to improve and control quality of products. May test sub-surface cores during drilling operations.

ISCO 08 Unit Group Details:

Code 3116

Title Chemical Engineering Technicians

3116.0600

Chemist, Water Purification/Water Treatment

Chemist, Water Purification; analyses water in purification plant to control chemical processes which soften it or make it suitable for drinking: Analyses samples of filtered water to ensure that quantities of solids left in suspension are below prescribed limits. Determines amounts of liquid chlorine to be used in chlorinators to destroy microbes and other harmful organisms, basing amounts on findings of MICROBIOLOGIST. Determines kinds and amounts of chemicals to be used in removing minerals, acids, salts, and other inorganic compounds from water to soften it. Tests

samples extracted from various points in distribution system, such as mains, tanks, pumps, and outlets, to discover possible sources of water contamination.

ISCO 08 Unit Group Details:

Code 3116

Title Chemical Engineering Technicians

3116.9900

Chemical Engineering Technicians, Other/Chemical Process Technicians

Chemical Engineering Technicians, Other include all other Chemical Engineering Technicians engaged in manufacture, research, processing and other fields of chemical engineering, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3116

Title Chemical Engineering Technicians

Family 3117

Mining and Metallurgical Technicians

Mining and Metallurgical Technicians perform technical tasks to assist in research and experiments related to metallurgy, in improving methods of extracting solid minerals, oil and gas, and in the design, construction, operation, maintenance and repair of mines and mine installations, of systems for transporting and storing oil and natural gas, and for extraction of metals from ores.

3117.0100

Rock Slicer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Rock Slicer; Section Cutter Prepares thin sections of rocks or minerals and grain mounts for identification of rocks and ores and for microscopic study and analysis. Holds small chips of rocks and grinds them on rotating wheels with carborundum powder to reduce thickness. Polishes one surface of chip by hand grinding on glass plate and mounds (fixes) thin rock slice on glass slide with Canada balsam (gum). Grinds other surface of chip to attain desired thickness and then covers it on top with another glass slide (cover slip) with Canada balsam. Grinds other surface to attain desired thickness of chip. Covers section by cover glass with Canada balsam. Fixes labels for marking. Marks glass slide with diamond pencil for numbering. Makes section finally ready for microscopic study.

ISCO 08 Unit Group Details:

Code 3117

Title Mining and Metallurgical
Technicians

3117.0200

Petroleum and Natural Gas Extraction Technician

Petroleum and Natural Gas Extraction Technician records pressure, temperatures and other characteristics of oil and gas well boreholes of producing wells using special surface instruments and interprets findings for use in determining further drilling producing procedures. Directs workers in assembling wire-line hosting gear and attaching line to instruments. Gives directions to Hoist Operator to lower clinograph (a form of adjustable setsquare, the two sides forming the right-angle being fixed while the third side is adjustable) into well to determine variation of well from vertical line (instrument records variation on

chart). Informs Rotary Driller of variation from vertical line. Lowers weighted wire into well and reads depth of well from recording wheel. Lowers depth bomb into well that records pressure at various depths to determine rate of natural flow of oil from well. Lowers thermometers and other instruments with accompanying recording devices through tubing, casing, drill pipe or open bore hole. Raises instruments from well and removes chart recording. Measures, converts, records and interprets data for use by engineering personnel and management in determining drilling or production procedure. May calibrate recording devices. May repair and maintain instruments.

ISCO 08 Unit Group Details:

Code 3117

Title Mining and Metallurgical
Technicians

3117.0300

Laboratory Assistant, Metallurgical

Laboratory Assistant, Metallurgical conducts routine tests of metals and alloys to determine their physical and chemical properties. Collects metallic wastes, metal samples or ores to be examined. Sets up scientific equipment required for testing. Assist Metallurgist in testing and analysing different types of metals, their by-products, waste and alloys. May conduct examination of metals on his initiative independently.

ISCO 08 Unit Group Details:

Code 3117

Title Mining and Metallurgical
Technicians

3117.9900

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Mining and Metallurgical Technicians, Other

Mining and Metallurgical Technicians, Other include all other mining and Metallurgical Technicians engaged in extraction and processing of minerals, manufacture, research, testing, etc. of metals and alloys, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3117
Title Mining and Metallurgical Technicians

Family 3118 Draughtpersons

Draughtpersons prepare technical drawings, maps and illustrations from sketches, measurements and other data, and copy final drawings and paintings onto printing plates.

3118.0100 Draughtsperson, Architectural

Draughtsman Architectural Prepares drawings of buildings, parks, gardens, monuments etc. from sketches, designs or data for construction. Studies notes, sketches and other engineering data of buildings, parks, gardens, monuments, etc. to be constructed. Draws sketches of required construction according to directions of Architect to suit purpose and environment; alters them if directed and get them approved by him. Draws to scale drawings according to approved sketches showing plan, elevations, settings, arrangements etc. as necessary. May trace drawing and make blue prints. May prepare architectural designs, may prepare estimate schedules for material

and labour. May prepare perspectives designs and render them in colour or monochrome. May prepare model of constructions work. May work as Draughtsman Civil.

ISCO 08 Unit Group Details:

Code 3118
Title Draughtpersons

3118.0200

Draughtsperson, Civil

Draughtsman, Civil prepares drawings of buildings, stores, high ways, dams, culverts, etc. from sketches, notes or data for purposes of construction or alternations. Takes instructions from Civil Engineer studies sketches and calculates dimensions from notes or data. Draws to given scale different elevations, plan, sectional views etc. of desired construction using drawing instruments. Draws detailed drawings of specific portions as required. Indicates types of materials to be used, artistic and structural features, etc. in drawing as necessary. May do tracing and blue printing. May reduce or enlarge drawings. May prepare or check estimate schedules for cost of materials and labour. May prepare tender schedules and draft agreements. May work as Draughtsman Architectural.

ISCO 08 Unit Group Details:

Code 3118
Title Draughtpersons

3118.0201

Plumbing Draftsman

Plumbing Draftsman is responsible for preparation of drawings of related to plumbing projects as per instructions.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	PSC/Q0201
QP NOS Name	Plumbing
Draftsman	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3118
Title	Draughtspersons

3118.0300

Draughtsperson, Electrical

Draughtsman, Electrical prepares drawings, diagrams of wirings of buildings, factories, high tension and low tension lines, appliances, motors, generators and other electrical equipment and goods from sketches, designs, data or sample for purposes of manufacture, installation, operation or repairs. Receives instructions from appropriate authority and studies design, sketches, notes, data etc. Draws to scale wiring diagrams, assembly arrangement and other drawings showing electrical connections fittings, sectional view etc. as required. Paints (writes) necessary instructions on drawing such as number of wire, type of insulation etc. to clearly indicate required details. May calculate details from available information by application of standard formulae. May trace and prepare blue prints. May prepare plans of electrical lifts. May prepare estimates, tender schedules and draft agreements.

ISCO 08 Unit Group Details:

Code	3118
Title	Draughtspersons

3118.0301

Draftsman

Draftsman is also called, 'Design Developer', the Draftsman makes/modifies electrical system drawings of control panels with application in various sectors. The individual at work develops electrical system drawings based on panel requirements of the customer, as communicated by the Design Engineer. This drawing is then verified by the Design Engineer and used by the production team in order to assemble the control panel.

Qualification Pack Details:

QP NOS Reference	ELE/Q7101
QP NOS Name	Draftsman
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3118
Title	Draughtspersons

3118.0302

Physical Design Engineer

Physical Design Engineer is responsible for converting the circuit design to a geometric representation for manufacturing the integrated circuit (IC). The individual at work understands the functional design of IC, converts them into geometric representation to enable Integrated Circuit manufacturing process. The individual is responsible for design, validation and verification of the integrated circuit layout.

Qualification Pack Details:

QP NOS Reference	ELE/Q1401
QP NOS Name	Physical
Design Engineer	
NSQF Level	5

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 3118
Title Draughtspersons

3118.0401 **Draughtsperson, Mechanical**

Draughtsman, Mechanical prepares drawings of machines, plants, mechanical components, equipment, etc. from sketches, notes, data or sample for purposes of manufacture or repairs. Takes instructions from Mechanical Engineer and calculates dimensions as required, from available materials (notes, data etc.) or sample. Draws to scale detailed drawings, assembly drawings, showing plan, elevations, sectional views etc. according to nature of work and operations required. Prints (writes) dimensions, tolerances, material to be used and other details to give clear picture and facilitate understanding. Maintains copies of drawings and makes blue prints. May trace drawings. May design simple mechanical parts. May prepare estimates for materials and labour required. May specialize in making drawings of jigs and tools and be designated accordingly.

Qualification Pack Details:

QP NOS Reference ASC/Q8201
QP NOS Name Draughtsman
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3118
Title Draughtspersons

3118.0402 **Draughtsman-Mechanical**

Draughtsman-Mechanical selects the appropriate equipment and drawing software to use based on the type and

complexity of the drawing functions to be carried out and the use of a CAD system linked bills of material, file management and associated customization of installed software including the use of macros, menus and default settings.

Qualification Pack Details:

QP NOS Reference CSC/Q 0402
QP NOS Name Draughtsman-Mechanical
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3118
Title Draughtspersons

3118.0500 **Draught person, Structural**

Draughtsman, Structural prepares drawings of bridges, steel structures, roof trusses etc. From sketches, designs or data for purposes of construction, alteration or repairs. Studies sketches, data, notes etc. and receives instructions from Structural or Mechanical Engineers regarding details and types of drawings to be made. Calculates dimensions as necessary from available notes, data etc. and by application of standard formulae. Draws to scale detail, assembly and arrangement drawings showing sectional plan and other views as directed and prints (writes) necessary instructions regarding materials to be used, limits, assembly etc. to clearly indicate all aspects of structure to be manufactured. May prepare estimate and operation schedules for labour and material costs. May prepare tender schedule and draft agreements. May prepare tables showing requirements of bars, their numbers, sizes and shapes. May trace and make blue prints.

ISCO 08 Unit Group Details:

Code 3118
Title Draughtspersons

3118.0600**Draughtsperson, Topographical**

Draughtsman, Topographical Sketches topographical drawings to scale in different colours using blue print prepared from field plane tables. Carries out independently projection of small scale map to predetermined size, incorporating features covered in survey, producing total geographical effect by hill shading, giving contours, profile, cross sections, authorised symbols, etc. Uses grid tables, projection table compasses, pantograph, planimeter, etc.

ISCO 08 Unit Group Details:

Code 3118
Title Draughtspersons

3118.0700**Lithographic Designer**

Lithographic Artist; Crayon Artist; crayon lithographer; lithographic designer produces key pattern by copying or creating original designs on prepared medium (polished or grained stone, zinc or aluminium, transfer or glazed paper) with soft greasy crayons for subsequent processing and printing.

ISCO 08 Unit Group Details:

Code 3118
Title Draughtspersons

3118.0800**Tracer**

Tracer makes copies of plans and drawings from original by spreading tracing paper or cloth on original and tracing in ink or pencil. Places original drawing on drawing board and secures it with drawing pins. Spreads tracing paper (transparent paper) or tracing cloth on original drawings. Traces outlines and other details of original drawing on tracing paper with pencil or special ink. Checks and ensures that tracings contain complete and accurate details as shown in original. May trace drawings on tracing tables or tracing boxes fitted with reflected or electric light arrangement. May operate pantograph machine to make enlarged copies of maps, layouts, plans etc. and compute area. May print letters uniformly or plans and sketches using special printing set. May take out blue prints, ammonia prints and Ferro prints from tracings using printing frame or machine.

ISCO 08 Unit Group Details:

Code 3118
Title Draughtspersons

3118.0900**Blue Printer**

Blue Printer prepares prints of drawings and sketches on sensitized paper (blue printing paper) using printing frames or machines. Turns printing frame to get glass side facing ground. Places original drawing or sketch on glass of printing frame to serve as original and spreads sensitive paper (special type of blue printing paper) over it. Closes door of printing frame tightly using paper sheets and felt strips. Pushes trolley frame (in which printing frame is fitted) to sun light and tilts printing frame to bring glass surface to face sun light and tighten it there. Exposes frame to sun light for fixed

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

period as directed depending on season and type of sensitive paper used. Removes exposed paper from frame and develops it in fixing bath (developer). Washes fixed or printed paper (blue print) in water and dries it in shade or in hot chamber. May place role of sensitive paper and original together, expose for specified period and feedback original every time as it comes out of delivery and if engaged in preparing blue prints by automatic printing machine. May develop exposed sensitized paper with fumes of liquid ammonia either separately in special chamber or in second chamber of automatic printing machine if provided. May prepare sensitive paper with special chemical solution. May clean and oil printing trolley and frame. May be designated as Ferro-printer, Ammonia Printer, etc., according to type of printing material used.

ISCO 08 Unit Group Details:

Code	3118
Title	Draughtspersons

3118.9900

Draughtspersons, Other

Draughtspersons, Other includes all other draughtsmen engaged in preparing drawings, maps and like sketches, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3118
Title	Draughtspersons

Family 3119

Physical and Engineering Science Technicians, Not Elsewhere Classified

This family covers Physical and Engineering Science Technicians not classified elsewhere. For instance, the group includes those who assist scientists and engineers engaged in developing procedures or conducting research on safety, biomedical, environmental or industrial and production engineering.

3119.0100

Laboratory Assistant, Engineering

Laboratory Assistant, Engineering fits and sets model engine, machines, Theodolite, meters and other equipment for conducting experiments and for demonstration in engineering laboratory. Sets up in position required apparatus and instruments either inside laboratory or in open as necessary and makes necessary connections with pumps, gauges, vacuum pipe, electrical lines etc. as required. Conducts routine experiments to explain or establish theoretical principles or observe performance, determine horse power, forces focal length, speed, effect of magnetism, pressure, vacuum, etc. as required. Maintains records of observations for calculation and reference purposes. Assists engineers in conducting study or research on engineering problems. May clean lenses and instruments and oil and grease machinery to maintain them in good condition. May do minor repairs to equipment and apparatus. May maintain inventory of apparatus and equipment and replace defective ones. May specialize in any particular branch of engineering laboratory and be designated accordingly.

ISCO 08 Unit Group Details:

Code	3119
Title	Physical and Engineering Science Technicians, n.e.c

3119.0200

Forensic Science Technician

Forensic Science Technicians collects, identifies, classifies, and analyses physical evidence related to criminal investigations. Performs tests on weapons or substances, such as fibre, hair, and tissue to determine significance to investigation. May testify as expert witnesses on evidence or crime laboratory techniques. May serve as specialist in area of expertise, such as ballistics, fingerprinting, handwriting, or biochemistry. Analyses and classifies biological fluids using DNA typing or serological techniques. Analyses gunshot residue and bullet paths in order to determine how shootings occurred. Analyses handwritten and machine-produced textual evidence to decipher altered or obliterated text or to determine authorship, age, and/or source. Collects evidence from crime scenes, storing it in conditions that preserve its integrity. Collects impressions of dust from surfaces in order to obtain and identify fingerprints. Confers with ballistics, fingerprinting, handwriting, documents, electronics, medical, chemical, or metallurgical experts concerning evidence and its interpretation. Determines types of bullets used in shooting and if fired from a specific weapon. Examines physical evidence such as hair, fibre, wood or soil residues in order to obtain information about its source and composition.

ISCO 08 Unit Group Details:

Code 3119

Title Physical and Engineering Science Technicians, n.e.c

3119.0300

Fingerprint Expert

Finger Print Expert examines fingerprints in criminal investigation and for identifying persons. Examines finger prints impressions visually or with magnifying glass and scientific apparatus to find out their characteristic. Classifies and arranges finger print impressions according to grouping depending on their characteristics. Compares these fingerprints with those on record to establish identity of persons. Examines finger print impressions found at scene of crime with powerful light and scientific apparatus such as magnifying, glass, microscope, etc. and gets them photographed. Checks and compares photo impressions with those of known criminals on file of police to establish identity. Assists court in identifying thumb impressions in forgery and impersonation cases by comparing disputed impressions with admitted ones. Attends court when required to give evidence in criminal or civil cases to prove identity of impressions. May examine palm and identify footprints by tracing, tracking, casting etc. May take photographs of impressions and develop them to locate fugitives, absconders, establish identity of dead persons etc.

ISCO 08 Unit Group Details:

Code 3119

Title Physical and Engineering Science Technicians, n.e.c

3119.0400

Handwriting Expert

Handwriting Expert; Document Examiner examines and identifies handwriting for detecting forgery. Studies hand written letters, documents, etc. to ascertain their genuineness. Examines and compares hand writing or signature on letters,

documents etc. referred to with writings or signature of concerned persons. Notes carefully suspicious retouching, erasures, obliterations, etc. Takes photograph of document under ultra violet ray or other filtered lights to make super imposed writing disappear to reveal original writing. Determines genuineness or forgery of signatures and writings by identifying feature using microscope. Reports findings with reasons to courts or other judicial authorities. Maintains record of photographs or interesting forged documents, signatures, letters; etc. May establish re-use of cancelled postage or other stamps. May attend court to give evidence.

ISCO 08 Unit Group Details:

Code 3119

Title Physical and Engineering Science Technicians, n.e.c

3119.0500

Impression Taker

Impression Taker (inscription) takes ink impression of inscriptions found on temple walls, stone slabs, pillars and other monuments on paper as required by Epigraphist. Places wet paper on inscribed portion of stone or metal plate. Beats paper over inscribed portion with hand brush so that paper gets into incision of engraved letters and applies black ink on surface of paper. Removes inked paper from stone inscription, showing real inscriptions in white against black background. Hands over paper containing inscription to Epigraphist for deciphering.

ISCO 08 Unit Group Details:

Code 3119

Title Physical and Engineering Science Technicians, n.e.c

3119.0600

Weather Observer

Weather Observer; Meteorological Technician observes and records weather conditions for use in forecasting. Periodically observes general weather, sky and visibility conditions, and reads weather instruments including thermometers, barometers, and hygrometers to ascertain elements, such as temperature, barometric pressure, humidity, wind velocity, and precipitation. Transmits and receives weather data from other stations over fax machine or e-mails. May collect upper air data on temperature, humidity, and winds, using weather balloon and radio sound equipment. May conduct pilot briefings.

ISCO 08 Unit Group Details:

Code 3119

Title Physical and Engineering Science Technicians, n.e.c

3119.0700

Methods, Time and Motion Study Technician

Methods and Time and Motion Study Technician studies and records time, motion methods and speed involved in performance of maintenance, production, clerical and other worker operations to establish standard production rate and to improve efficiency. Prepares charts, graphs, and diagrams to illustrate work flow routing, floor lay outs, material handling, and machine utilisation. Observes workers operating equipment or performing task to determine time involved and fatigue rate, using stopwatch, electrical recorder, and similar instrument. Recommends revision of methods of operation or material

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

handling, alterations in equipment lay out, or other changes to increase production or improve standards. Aids in planning work assignments in accordance with worker performance, machine capacity, production schedules, and anticipated delays.

ISCO 08 Unit Group Details:

Code 3119

Title Physical and Engineering Science Technicians, n.e.c

3119.0800

Fire Prevention Officer

Fire Prevention Officer; Fire Station Officer detects and eliminates or reduces fire hazards in industrial plants, factories, warehouses, place of public assembly and other establishments. Inspects fire extinguishing and fire prevention equipment at regular intervals. Determines temperature, pressure etc. using instruments and by special tests to study and investigate conditions and practices likely to cause fires and reports findings and recommends fire preventive measures, such as provision for exits, adequate floor area and height of building, storage of combustible and explosive materials at required distance and under proper conditions, provision of hydrants and water supply resources etc. to eliminate undesirable conditions. May establish and operate fire safety programmes. May train personnel in fire-fighting and guide operations in case of a fire.

ISCO 08 Unit Group Details:

Code 3119

Title Physical and Engineering Science Technicians, n.e.c

3119.0900

Fire Officer

Fire Officer directs fire-fighting and rescue operations, trains fire-fighting personnel and maintains fire-fighting appliances and equipment in operational condition. Studies fire reports and addresses from Fireman on watch. Decides nature of operation and proceeds on fire-fighting vehicle to the scene of fire with required number of fire-fighting personnel and equipment. Assesses intensity of fire and rescue operations required and deploys men and equipment for its control. Cordons off area, and directs operations to extinguish the fire with water or chemicals or use of portable fire extinguishers as appropriate and orders demolition of any part of building and structures to prevent further spread of fire. Arranges and aids rescue operations to rescue entrapped men, animals, property and to render first aid to injured. Investigates causes of fire and arson and submits report as required. Performs other services during emergencies or natural calamities where specialized equipment is useful such as rescuing people in danger of flood or storm, manning hoses to control rioters, and extricating persons or animals from places not easily accessible.

ISCO 08 Unit Group Details:

Code 3119

Title Physical and Engineering Science Technicians, n.e.c

3119.1000

Fire Inspectors, Other

Fire Inspectors, Other include all other associate professionals engaged in government, industrial and other enterprises, who inspect different structures to ensure compliance with

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

central/state government laws and with approved plans, specifications and standards, or inspect fire prevention systems and investigate fire sites to determine cause of fire not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3119
Title Physical and Engineering Science Technicians, n.e.c

3119.1100 Laser Technician

Laser Technician constructs and tests prototype gas or solid-state laser devices, applying theory and principles of laser engineering and electronic circuits: Reviews project instructions, such as assembly layout, blueprints, and sketches, and confers with engineering personnel to clarify laser device specifications. Interprets production details, such as dimensions and functional requirements, for workers engaged in grinding mirror blanks, coating mirror surfaces, and machining metal parts. Installs and aligns optical parts, such as mirrors and wave plates, in laser body, using precision instruments. Turns controls of vacuum pump and gas transfer equipment to purge, evacuate, and fill laser body with specified volume and pressure of gases, such as helium, neon, or carbon dioxide, to test laser beam. Assembles completed laser body in chassis, and installs and aligns electronic components, tubing, and wiring to connect controls, such as valves, regulators, dials, and switches. Sets up precision electronic and optical instruments to test laser device, using specified electrical or optical inputs. Tests laser for gas leaks, using leak detector. Analyses test data and reports results to engineering personnel.

ISCO 08 Unit Group Details:

Code 3119
Title Physical and Engineering Science Technicians, n.e.c

3119.9900 Optical and Electronic Equipment Controllers, Other

Optical and Electronic Equipment Operators, other include all other Technicians engaged in optical and electronic equipment operations not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3119
Title Physical and Engineering Science Technicians, n.e.c

Group 312 Mining, Manufacturing and Construction Supervisors

Mining, Manufacturing and Construction Supervisors co-ordinate, supervise, control and schedule the activities of workers in manufacturing, mining and construction operations.

Occupations in this Group are classified into the following Families:

3121 Mining Supervisors
3122 Manufacturing Supervisors
3123 Construction Supervisors

Family 3121 Mining Supervisors

Mining supervisors oversee mining and quarrying operations and directly

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

supervise and co-ordinate the activities of miners working in underground and surface mines and quarries.

3121.0100

Supervisor and Foreman, Mining and Quarrying

Supervisor and Foreman, Mining and Quarrying supervises and guides workers engaged in various mining and quarrying operations and ensures compliance with safety and mining rules and regulations. Collects information of workers present on duty in his section and allots duties to different Sirdars or head workmen according to nature of tasks to be performed. Ensures application of prescribed safety measures and compliance with mining rules and regulations in his section. Visits different portions of his section, guides workers as necessary and collects necessary information. Keeps in touch with surface, if working underground, arranges proper loading and unloading, dewatering and other mining operations. Maintains prescribed records, submits returns and ensures proper discipline, within his section. Co-ordinates functions with other sections and takes emergency measures as and when required. May be designated according to section or work supervised. (Excluded are other mining and quarrying supervisory staff, described separately).

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisors

3121.0200

Supervisor and Foreman, Well Drilling

Supervisor and Foreman, Well Drilling supervises and guides workers engaged in well drilling, well pulling, cementing and like operations and keeps liaison between workers and senior staff. Guides workers in setting drilling rigs, selecting cutters to suit earth's strata, getting drillings tested, fitting pipes and tubes, cementing, etc., according to section in which posted and duties assigned. Decides plan of work, arranges for tools, equipment and accessories required and ensures proper working. Informs working difficulties to senior staff and assists in getting them removed. Maintains necessary records and registers and submits prescribed returns. May assist workers and senior staff in their work. May be designated according to nature of work or section supervised. (Excluded are other well drilling supervisory staff, described separately).

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisors

3121.0300

Supervisor and Foreman, Mineral Treating

Supervisor and Foreman, Mineral Treating supervises and guides workers engaged in mineral treating operations according to directions and test results received from laboratory. Guides workers in setting up crushing, sieving, straining, washing, precipitating and other machines and equipment according to section in which posted and duties assigned and ensures proper working. Gets samples tested as prescribed and directs alterations as per test results, if necessary. Arranges for stores and equipment and keeps plants in working order. Maintains production and other records and registers and submits

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

returns as prescribed. May test samples, demonstrate operations and train workers. May be designated according to mineral treated or work supervised. (Excluded are chemists, laboratory workers and other supervisory staff in mineral treating described separately).

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisor

3121.0400

Overman, Colliery

Overman, Colliery; Mine Foreman guides and supervises extraction of coal, mineral, timbering, etc. in his section of mine and ensures compliance of safety measures. Supervises setting of supports for securing roof and walls of work face. Ensures that air crossing, door, brattice and other ventilation devices are maintained in good order. Inspects track and tram-lines to see that they are properly laid, graded ballasted or otherwise packed. Ensures that man-holes and haulage roadways are kept safe and clear of obstruction. Detects unsafe appliances such as runaway switches, stop-blocks, ropes, chains, brakes, jig-wheels and gets them replaced. Ensures that supply of timber, brattice and other essential materials are stored at convenient places. Attends to danger reports and employs safety measures promptly. Gets dangerous places adequately fenced-off and gets defects removed. Maintains prescribed records and submits reports to superiors on safety measures and output of work. May do gas testing and supervise rescue operations if necessary. May be designated as RESCUE OVERMAN if qualified and perform rescue operations.

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisors

3121.0500

Sirdar, Colliery

Sirdar, Colliery assists Overman, Colliery in his work and conducts drilling, blasting, timbering, etc. Indents and collects material and other equipment near worksite. Directs and guides drilling and blasting operations ensuring observance of safety precautions. Examines edges of space left by extraction of coal seam and directs erection of supports according to timbering rules. Attends to dangerous operations giving directions in safety measures. Maintains records of output in his section and submits reports to superiors. May deputise for Overman, Colliery in his absence. May render first-aid and conduct rescue operations, if necessary.

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisors

3121.0600

Mud Supervisor

Mud Supervisor supervises preparation of mud (fluid-to-plastic mixture of compounded clay, chemicals and water) of required consistency at well or mud plant for drilling operations. Adds chemicals to mud or gets them mixed by Mud man in required proportions. Gets mud tested by analyst for consistency and removes defects, if any. Maintains record of all mud transactions, stock and chemicals used. Operates vibrating screen and directs closing and opening of line and tank valves as required. Instructs Drilling Crew to keep channels and tanks

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

clean from sediments, well cuttings, sand, silt etc.

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisors

3121.0700

Well Pulling Supervisor

Well Pulling Supervisor studies depth and fluid level in well and controls well pulling, swabbing and scrapping operations. Takes measurement of depth of well and fluid level. Ensures issue of proper equipment and material to Well Drilling Operatives at work site, Guides crew to set up hoisting equipment mounted on tractor for repairs, replacements and removal of broken drilling accessories from well. Gets well cleared of mud and water and broken rods tubing etc. using special tools. Controls flow of oil or gas with plug device according to pressure chart. Reports irregularities to proper authorities. Maintains record of progress made. May swab old wells for removing mud, water and slush. May attend to leakage, breakage and other failures during well commission operations.

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisors

3121.0800

Gas Supervisor

Gas Supervisor operates for correct supply of gas and ensures proper functioning of meters, indicators and automatic gas controllers at well site. Supervisors blending of gas line, prevent leakage and maintains correct pressure of gas in pumps. Reports irregularities and defect

to proper authorities and ensure proper functioning of well site meters, indicators and automatic gas controller. May do minor repairing of meters and indicators.

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisors

3121.9900

Supervisors and Foremen in Mining and Mineral Processing Plant Operation Activities, Other

Supervisors and Foremen, Mining and Mineral Processing Plant Operation Well Drilling Activities, Other include all the supervisors and foremen engaged in mining quarrying, well drilling and related activities in field, plant or workshop, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3121
Title	Mining Supervisors

Family 3122

Manufacturing Supervisors

Manufacturing Supervisors co-ordinate and supervise the activities of Process Control Technicians, Machine Operators, Assemblers, and other Manufacturing Labourers.

3122.0100

Supervisors and Foremen, Metal Making, Converting and Refining

Supervisor and Foreman, Metal Making, Converting and Refining supervises and guides workers engaged in various metal making and refining processes and ensures efficient operations. Guides

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

workers in setting up and controlling, furnaces, charging of raw materials according to type of metal to be made, mixing of chemicals and ingredients for making alloys, controlling furnace flue, water circulation, tapping, pouring, casting and other operations for making required type and quality of metal and alloy. Arranges stock of raw materials, tools, equipment and accessories and ensures efficient and stipulated performance. Checks plants and equipment and gets defects removed. Maintains records and registers and submits prescribed returns. May test samples while processing and make necessary adjustments. May be designated according to section or work supervised. (Excluded are other metal making, converting and refining supervisory staff, described separately).

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.0200

Foreman, Blast Furnace

Foreman, Blast Furnace directs and controls operations of blast furnace for production of pig iron. Directs Stock House Foreman on phone to charge proper proportions of raw material (limestone, iron-ore, coke, manganese etc.) and regulates blast. Checks furnace condition such as blast temperature pressure, furnace space, etc., and controls tapping of molten metal, removing slag (waste matter) and loading of molten iron in ladles. Records all details of furnace in log book. Checks iron and slag samples and issues necessary instructions for rectifying defects if any. May also do slag flushing tapping and operate mud gun for closing tapping hole.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.0300

Stock House Foreman

Stock House Foreman directs operations of stock house and controls charging of furnace. Arranges unloading of raw materials into stock house by Bunker Khalasis and thence to respective bunkers. Receives instructions from Blower, or Foreman Blast Furnace and accordingly instructs Lorry Car Driver or Control Man, Blast Furnace for loading skip with raw material. Keeps accounts of furnace charging, raw material etc. May check lime coating of slag ladles.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.0400

Supervisor and Foreman, Metal Treating

Supervisor and Foreman, Metal Treating supervises and guides workers engaged in treating metals by tempering, hardening, electroplating, etc., and ensures desired finish. Arranges for necessary stores, chemicals, tools and equipment etc., and plans work according to tasks assigned and finish desired. Guides workers in heating metals, controlling temperature, setting vats and baths, hardening, tempering, degreasing, making chemical solutions of required strength electroplating and other processes involved in treating metals according to nature of work performed and ensures prescribed finish. Reports operational

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

difficulties to senior staff or respective sections and gets them removed. Ensures compliance with safety measures, and maintenance of tools and equipment. Maintains necessary records and registers and submits reports as required. May control one or more sections according to the size of the organization. May be designated according to section or work supervised. (Excluded are Technologists described elsewhere).

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.0500

Supervisor and Foreman, Metal Drawing and Extruding

Supervisor and Foreman, Metal Drawing and Extruding supervises and guides workers engaged in metal drawing and extruding operations for making wires, tubes etc. by automatic or semi-automatic processes. Guides workers in setting machines, dye guides, mandrel etc. according to nature of production. Supervises operations and directs workers as necessary to ensure efficient performance and prescribed finish. Arranges for tools and equipment and maintains them in working order. Ensures compliance with safety rules and precautionary measures, maintains necessary records and registers and submits returns as prescribed. May assist workers in setting machines and equipment. May be designated according to section or work supervised.

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.0601

Assembly Line Supervisor

Assembly line supervisor oversees assembly operation as per the required norms. Assembly of components includes engines, transmission components, electrical and electronic circuit and components, dashboards, seating System, wheels, doors etc. and assembly of these aggregates in the vehicles at the required locations and as per required vehicle type/batch, deploying manpower as per requirement, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift.

Qualification Pack Details:

QP NOS Reference	ASC/Q3602
QP NOS Name	Assembly Line Supervisor
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.0800

Supervisor and Foreman, Glass Forming and Related Activities

Supervisor and Foreman, Glass Forming and Related Activities supervises various operations for manufacture of glass and glass products and ensures production to required specifications. Studies details of type and quality of glass or glass product to be made and explains tasks to be performed and precautions to be taken, for correct manufacture to workers.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Conducts operations according to type of manufacture. Guides workers in mixing ingredients, controlling kiln temperature, and processing operations like blowing, drawing, rolling, cutting and grinding glass to required specifications, etc., as necessary to ensure desired production. Keeps kilns and appliances in working order, replenishes stock of raw materials and maintains production chart and prescribed records. Enforces safety measures and necessary steps to avoid wastage and proper use of men and materials. May be designated according to section supervised or operation controlled. May specialize in manufacture of particular type of glass or manufacture process.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.0900

Supervisor and Foreman, Ceramics and Related Activities

Supervisor and Foreman, Ceramics and Related Activities supervises various operations for manufacture of ceramic articles, abrasive wheels, bricks etc., and ensures production to required finish and specifications. Studies drawings and specifications of articles to be made and other necessary details for different stages of work to respective workers. Supervises and controls mixing of ingredients, crushing, casting, moulding, heating, baking, glazing and other operations as necessary according to articles being made and section supervised. Ensures correct production and takes steps to avoid loss and wastage and achieve proper use of men and materials. Maintains prescribed records and registers, replenishes stock of raw materials and keeps machines, kilns and

equipment in proper working order. May specialize in any particular type of branch of production and be designated accordingly.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.1000

Supervisor and Foreman, Wood Preparation and Paper Making

Supervisor and Foreman, Wood Preparation supervises and guides workers engaged in treating wood by process of seasoning, bending, impregnating with chemical etc. and ensures desired finish for further processing guides workers in setting and controlling temperature and humidity of kiln, impregnation wood with chemicals to prevent decay, bending wood to required shape by controlled steaming, heating softening and drying etc., and ensures desired finish for further processing or otherwise. Arranges materials, chemicals etc. according to requirements and ensures stipulated performance at every stage of work. May examine wood to plan treating, may be designated according to section or work supervised. (Excluded are Technologists described elsewhere).

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.1100

Supervisor and Foreman, Paper Pulp and Paper Making

Supervisor and Foreman, Paper Pulp and Paper Making supervises and guides workers engaged in various paper pulp

and paper making operations and ensures desired quality and finish. Guides workers in grinding and sorting paper pulp, liquor making, controlling flow of caustic solution in digester, operating digester, heating and paper making machines, etc., as required. Ensures efficient operation and performance of all men and machines and manufacture of paper according to prescribed specifications. Gets samples tested while processing and makes necessary adjustments according to test results. Arranges for materials and chemicals as required, maintains tools, machines and equipment in working order and ensures compliance with safety rules and regulations. May test samples, while processing and suggests modifications. May be designated according to section or work supervised. (Excluded are Technologists and Chemists described elsewhere).

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.1300

Supervisor and Foreman, Chemical Processing and Related Activities

Supervisor and Foreman, Chemical Processing and Related Activities (Excepting Petroleum) supervises and guides workers engaged in various chemical and related operations and ensures safety of workers and correct performance. Guides workers in setting and operating machines and plants for chemical and related processes such as crushing, grinding, mixing, cooking, roasting, making solutions, precipitating, filtering, operating stills and reactors, etc., and ensures correct performance. Gets samples tested or conducts shop tests as prescribed, and directs necessary

adjustments to get specified results. Arranges for men and material as required and ensures safety of plants and workers supervised. Ensures compliance with rules and regulations binding on chemical factories and takes appropriate emergency measures as necessary. Maintains records and registers and submits returns as prescribed. May set machines and plants, perform chemical and related tests and train workers in handling plants and equipment. May be designated according to section or work supervised. (Excluded are chemists and chemical engineers, described elsewhere).

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.1400

Supervisor and Foreman, Petroleum Refining and Related Activities/Operator/Engineering Assistant (Mechanical/electrical/civil/chemical) related activities

Supervisor and Foreman, Petroleum Refining and Related Activities supervises and guides workers engaged in processing and refining petroleum and its by-products and ensures prescribed quality and standard of production. Guides workers in setting up, operation, temperature control and upkeep of various plants and equipment used in petroleum refining and manufacture of its by-products by processes of fractional distillation, straining, filtering, atomisation (cracking of hydrocarbons) etc., and ensures prescribed quality and standard of production of petrol, lubricants, white

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

grease, synthetic coal, bitumen and other original and by-products. Arranges for materials, gets samples tested, while processing and makes necessary adjustments according to test results. Ensures safety, upkeep and proper utilization and performance of all men, machines, plants and equipment supervised. Maintains records and registers and submits returns as prescribed. May test samples while processing and operate plants if necessary. May be designated according to section of work supervised. (Excluded are Chemists and Chemical Engineers described elsewhere).

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.1600

Boiler Supervisor

Boiler Supervisor supervises performance and operation of coal, gas or oil fired boilers and ensures their proper functioning. Checks gauge and meter readings, setting of automatic draught control, feeding of fuel in hopper, water feed system, steam pressure, etc., in boiler house before starting boilers. Ensures proper combustion of fuel, required flue gas temperature and maintenance of prescribed steam pressure. Checks ash contents either visually or by chemical analysis and ensures continuous and proper working of ash disposal system, cleaning of tube ways and maintenance of boilers and equipment in perfect working order. Adopts precautionary measures in case of emergencies to avoid accidents. Maintains boiler house log book and devises methods to improve efficiency. Gets boilers ready for inspection by Boiler

Inspector as scheduled. May conduct minor repairs .

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.1700

Supervisors and Foremen, Stationary Engine and Related Equipment

Supervisor and Foreman, Stationary Engine and Related Equipment supervises performance and operation of stationary engines and related equipment and ensures their proper upkeep. Checks stationary engines and mechanical equipment under charge such as steam engines, air compressors, vacuum and centrifugal pumps, turbines, etc., for operational efficiency, output and other factors and assess their working condition at beginning of shift. Instructs workers to operate engines and equipment according to their respective working condition and observes their performance by reading meters and gauges as well as by sight and sound. Directs stopping of malfunctioning engines, arranges for their repairs and distributes load on other units as required, within specified safety limits. Supervises performance of workers operating them and ensures their proper working, and daily maintenance like oiling, greasing, etc. Arranges for periodical repairs and overhauling as scheduled and maintains prescribed records and registers. May conduct running repairs in case of emergency. May specialize in any particular branch of engine or type of work.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.1800

Supervisor and Foreman, Stone Cutting and Carving

Supervisor and Foreman, Stone Cutting and Carving supervises and guides cutting, dressing and carving of stones for making statue, floral designs, figures, etc., according to model, design or specifications. Studies details of product to be made, selects right type of stone block, marks it as necessary and decides plan of work. Explains details and tasks to be performed to workers, supervises cutting, dressing, carving, polishing and related operations and instructs workers as necessary. Observes and measures articles at different stages of production, gets defects removed or rectification done, where necessary and ensures correct production to required finish. May copy design from catalogue and undertake enlargement work. May guide matching and repair work.

ISCO 08 Unit Group Details:

Code 8212

Title Cement and Other Mineral Products Machine Operators

3122.1900

Supervisor and Foreman, Machine Tool Operations

Supervisor and Foreman, Machine Tool Operations supervises various machining and grinding operations and ensures production to required specifications. Studies drawings and plans lay out of work according to machine capacity. Arrange for material, tools, cutters, jigs, fixtures etc., distributes work and explains working details to respective Machine

Operators. Guides setting of machines, checks trial piece and ensures correct operation. Watches and measures work at different stages of production and gets defects removed wherever noticed. Keeps machines, tools and equipment in good working condition, prevents wastage of material and serves as liaison between workers and management. Maintains necessary records and registers and ensures upkeep and discipline of shop supervised. May be designated according to machines or section supervised.

ISCO 08 Unit Group Details:

Code 8212

Title Cement and Other Mineral Products Machine Operators

3122.2000

Supervisor and Foreman, Rubber Goods Making

Supervisor and Foreman, Rubber Goods Making supervises manufacture of tyres, tubes and other rubber goods and ensures proper utilisation of men and materials. Arranges to draw raw materials according to specifications of articles to be made or processes involved. Guides setting of machines, tools and operations for mixing of rubber, making solution and dough, bead making, tyre and subtle moulding, making foam cushions, hose pipes, etc., and runs trial piece. Checks for dimensions, shape and other specifications as prescribed and gets resetting done as necessary. Maintains prescribed records and serves as liaison between workers and management. Gets machines repaired and overhauled as necessary and ensures proper utilisation of men and material. May get trial piece checked and approved by inspection department before starting actual

production. May get running repairs done under his guidance.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.2100

Supervisor and Foreman, Plastic Products Making

Supervisor and Foreman, Plastics Product Making supervises various plastics product manufacturing processes and ensures proper use of men and materials. Studies specifications, arranges for materials, tools and equipment and guides setting of machines, tools, din, moulds, etc., according to type of article to be made. Gets trial piece made, checks it for dimensions, form and composition and makes alterations if necessary to ensure conformation to prescribed specifications. Supervises machine and other manufacturing processes such as extruding, moulding, injecting of material, etc. and ensures correct production. Maintains necessary records, ensures proper use of men and material and develops methods to minimise wastage. May conduct running repairs of machines and equipment to keep them in working condition.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.2200

Plastic Moulding Shop Supervisor

Plastic Moulding Shop Supervisor is responsible for supervising the PVC moulding

and extrusion activities to create well-formed PVC parts for automobile components, maintaining process parameters, conducting quality checks on output product, deploying manpower as per requirement, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift

Qualification Pack Details:

QP NOS Reference ASC/Q4403

QP NOS Name Plastic

Moulding Shop Supervisor

NSQF Level 5

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.2300

Plastic Moulding Shift In Charge

Plastic Moulding Shift In Charge is responsible for all types of extrusion and moulding operations for plastic products and to manage operations during a shift. This role is responsible for managing PVC moulding and extrusion activities during the shift, maintaining process parameters, deploying manpower as per requirement, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift. The role holder is also responsible to set the moulding machine parameters and the process flow during operations

Qualification Pack Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Reference	ASC/Q4404
QP NOS Name	Plastic
Moulding Shift In Charge	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.2400

Supervisor and Foreman, Wood Working (Machine)

Supervisor and Foreman, Woodworking Machines supervises and guides workers engaged in operating woodworking machines for sawing, shaping, sizing and planning lumber, making joints etc., according to sample or specifications. Studies drawings or measures samples and guides workers to set machines according to required sizes. Selects lumber, runs trial piece and checks it to ensure correct setting. Gets machine reset, if necessary, and directs to saw or machine, required number of pieces. Checks machined pieces from time to time, ensures correct operations and maintains production to required schedule. Enforces safety measures, prevents wastage of material and gets tools and machines repaired or replaced as necessary to keep them in perfect working condition. Maintains prescribed records and registers and serves as liaison between workers and management. May be designated according to machine or section supervised.

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.2500

Supervisor and Foreman, Carpentry, Cabinet Making and Related Wood Working Processes

Supervisor and Foreman, Carpentry, Cabinet Making and Related Woodworking Processes supervises and guides carpenters and related workers engaged in making furniture, coaches, vehicle bodies, carts, etc. according to sample or prescribed specifications. Studies drawings or sample, selects right type of lumber or machined pieces and explains sizes, joints and article to be made to carpenters supervised. Checks work from time to time, ensures making of correct joints, fittings and working and guides workers as necessary. Examines assembled articles for shape, size, rigidity, finish, etc., and gets defects removed where noticed. Maintains necessary records and registers and serves as liaison between workers and management. May undertake repair work or evolve new designs. May be designated according to nature of production or section supervised.

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.2600

Supervisor and Foreman, Paper and Paper Board Product Making

Supervisor and Foreman, Paper and Paper Board Product Making supervises manufacture of paper and paper board products by various manual and mechanical processes and ensures correct production. Studies details of articles to be made and arranges, for necessary metal, wooden or cardboard patterns or gets machines set accordingly. Guides

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

workers in cutting, folding, trimming, moulding papier Mache to required shape, stretching cardboard parchment or other paper over lamp shade frame, etc., depending on type of article to be made and ensures correct production. Keeps production and other prescribed records, ensures proper utilisation of men and material and develops methods to minimise wastage. Maintains discipline in section supervised and trains new workers. May design paper flowers, toys and novelties.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.2800

Jobber (Textile)

Jobber (Textile) supervises workers in specified section of textile plant and maintains machines and equipment in peak operating order. Plans work procedures and allocation of workers in accord with production goals and availability of machines. Sets-up and adjusts looms and other machines to best performance before turning over to workers. Makes minor repairs to restore them to top efficiency or to keep them in operation and avoid production delays. Assembles and distributes raw materials and supplies. Moves constantly about in work area to supervise workers and examines work performed to assure that quality and quantity standards are being met. Introduces changes in manufacturing processes as directed. Maintains simple production records. Controls tools in tool room, enforces fire and safety regulations and transmits workers' grievances to higher authority. May assist in overhauling, repairing and erecting or dismantling of machinery. May be

designated as JOBBER, CARDING; JOBBER, SPINNING; FANCY JOBBER; JOBBER, COMBING; JOBBER, DOFFING; SIDE JOBBER; LINE JOBBER; JOBBER, REELING, JOBBER, DRAWING; JOBBER, SIZING; JOBBER, DYEING; etc. according to work performed.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.2900

Supervisor and Foreman, Hosiery

Supervisor and Foreman, Hosiery supervises workers in specified section of hosiery mill for manufacture of socks, vests, gloves and other hosiery products. Guides Knitting Jobber to set machine according to type of article to be manufactured and ensures upkeep of machines and equipment in perfect working condition. Moves about in work area, checks production and ensures correct manufacture. Suggests modifications as necessary and enforces safety and other rules and regulations. May keep records and registers and submit reports.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3000

Supervisor and Foreman, Tanning and Pelt Dressing

Supervisor and Foreman, Tanning and Pelt Dressing supervises and guides workers engaged in processing tanning and dressing hides, leathers and pelts and ensures prescribed quality and required finish. Guides workers in tanning and pelt

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

dressing processes such as liming, de-liming, fleshing, de-hairing, stretching, chemical or bark tanning, matching currying, dressing etc. as necessary and ensures specified quality and required finish of product. Arranges for materials, chemicals and other ingredients, enforces safety and precautionary measures and ensures proper utilisation of men, materials, plants and equipment supervised. Maintains records and registers and submits reports and returns as prescribed. May specialize in any materials, plants and equipment supervised. May specialize in any particular tanning or dressing operation. May be designated according to section or work supervised.(Excluded are Leather Technologist described elsewhere).

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3100

Supervisor and Foreman, Shoemaking

Supervisor and Foreman, Shoe Making supervises and guides workers engaged in manufacture of footwear and their components. Studies design and sketches of shoes or other types of footwear to be made. Selects right type of leather, canvas and other raw materials, gets machines and assembly line set, distributes work according to system of manufacture and conducts operations to ensure correct use of men and materials. Checks components at various stages of production, arranges regular flow of materials for line assembly work and gets snags removed as noticed. Ensures correct production and gets batches checked by Examiner. Maintains production log, material and other accounts and serves as liaison between

workers and management. May supervise complete shoe-making or one or more of its sections and be designated accordingly.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3200

Supervisor and Foreman, Harness and Saddle Making

Supervisor and Foreman, Harness and Saddle Making supervises manufacture of harness and saddle and ensures production to required specifications. Studies drawing or sample of saddle or harness to be made. Selects right type of leather, felt, stiffeners, sheep wool, and other materials required and issues them to workers according to parts or components to be made. Supervises cutting, sizing, shaping, forming, looping, fitting of metal parts and other operations, guides workers as necessary and ensures correct use of men and materials. Checks production at every stage, gets defects removed if any and ensures conformation to prescribed specifications. Checks completed articles with measuring tape and gauges and gets them polished and finished. May specialize in manufacture of any particular type or component of saddle or harness and be designated accordingly. May make saddles to order to suit customers specific requirements.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3300

Supervisor and Foreman, Leather Goods Making

Supervisors and Foreman, Leather Goods Making supervises manufacture of fancy and other leather goods such as gloves, suitcases, purses, belts, whips, etc. according to customer's choice or latest designs. Studies designs from catalogue or samples and decides manufacturing process. Arranges for required type and quality of materials and gets working pattern made to suit specifications. Instructs and guides workers as required and ensures correct operations and quality and finish of ultimate product. May specialize in manufacture of any particular items and be designated accordingly.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3400

Supervisors and Foremen, Textile Related Products

Supervisor and Foreman, Textile and Related Products (Except Garments) supervises and guides workers engaged in making cushions, tents, parachutes, upholstery and like products and ensures production to required specifications. Guides cutting, joining, folding, stitching and other operations according to specifications, drawing or sample and ensures correct finish and size. Gets necessary fittings done as detailed. Checks work or gets it checked at every stage of production and directs alterations as necessary. Keeps machines and equipment in working order and maintains prescribed records and registers. May set related power driven machines and equipment. May be designated according to type of production or section supervised.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3450

Scouring Supervisor, Wool

Scouring Supervisor, Wool; Scouring Jobber, Wool supervises work of Scouring man, Wool and Drying Machine man, Wool. Prepares chemical solution or instructs scouring man in preparing it. Adjusts scouring and drying machines and does running repairs.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3500

Supervisors and Foremen, Tailoring and Dress Making

Supervisor and Foreman, Tailoring and Dress Making supervises and guides workers engaged in production of readymade garments and ensures standard fittings and finish at reasonable cost. Guides workers in making patterns for cutting, adjusting electrical and special purpose sewing machines, setting, joining and sewing parts, button matching, etc., and ensures standard fittings and finish. Checks work, and directs or makes alterations where necessary and keeps machines and equipment in working order. Maintains production register and delivers goods against receipts. May copy or develop new designs to boost sale. May train new entrants. May be designated according to section or work supervised. (Excluded are Garment Designers and Cutters described elsewhere).

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3551

Production Supervisor-Sewing

Supervisor guides activities of operators and/or other employees engaged in the process of manufacturing, inspection, processing and related activity. Production Supervisor plans and allocates resources and monitors schedules. Their work includes checking output, input material, equipment and ensuring process controls. They communicate, simplify, and interpret specifications, job orders, and procedures for operators and provide solutions to problems that affect the desired output and organizational goals. They also train employees for continual improvement and to achieve the organizational objectives.

Qualification Pack Details:

QP NOS Reference	AMH/Q2101
QP NOS Name	Production
Supervisor-Sewing	
NSQF Level	6

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3600

Supervisor and Foreman, Brush Making

Supervisors and Foremen, Brush Making supervises manufacture of bristles, nylon and other types of brushes, and ensures correct production. Studies specifications of type of brush to be made and instructs respective workers accordingly. Checks setting, sizing, sterilizing and other

operations, during manufacture according to processes involved, rejects defective items or gets defects removed and ensures correct production. Maintains prescribed records and registers and evolves methods to minimise wastage as far as possible. May specialize in manufacture of one or more types of brushes.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.3800

Supervisor and Foreman, Tobacco Preparation, Cigar and Cigarette Making

Supervisor and Foreman, Tobacco Preparation, Cigar and Cigarette Making supervises and guides workers engaged in tobacco preparation, cigar and cigarette making and ensures quality and proper manufacture according to brand produced. Guides workers in various tobacco preparation, cigar and cigarette making operations, such as curing, grading, blending, conditioning, drying, stretching, rolling, slitting and other manual and mechanical processes and ensures proper quality according to brand produced. Arranges for materials and ensures upkeep of machines and equipment and proper utilization of men, materials and machines supervised. Maintains necessary records and registers, submits prescribed reports and returns and enforces excise and other rules and regulations. May test samples while processing. May be designated according to section or work supervised.

ISCO 08 Unit Group Details:

Code 3122

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Manufacturing Supervisors

3122.3900

Supervisor and Foreman, Tobacco Product Making

Supervisor and Foreman, Tobacco Products Making supervises and guides workers engaged in making snuff, zarda, kimam and other tobacco products and ensures quality of products manufactured. Guides workers in cutting tobacco leaves, drying, roasting, grinding, dyeing, pounding and other operations according to nature of work and ensures quality of product manufactured. Arranges for materials and ensures proper utilization of men and equipment supervised. Trains new entrants and maintains prescribed records and registers. May specialize in manufacture of any particular type of tobacco product. May be designated according to section or work supervised.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.4000

Supervisor and Foreman, Material and Freight Handling

Supervisor and Foreman, Material and Freight Handling supervises slinging, rigging and handling of material and freight for loading, unloading or placing them as required. Examines material or freight to be handled for size, approximate weight, appropriate position for balanced slinging, etc., and determines safe and best method of handling them without damaging. Directs and co-ordinates operations of Slingers, Cable Splicers, Riggers, Crane and Hoist

Operators, etc., in slinging, raising, moving, lowering, loading, unloading, placing and other activities ensuring safe load and necessary precautions according to type of material or freight handled. Takes special precautions while handling fragile, inflammable and explosive materials to avoid breakage and accidents. Applies emergency measures where necessary and ensures safety of workers around. May maintain record of material handled.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.4100

Supervisor and Foreman, Checking, Sorting, Packing and Related Activities

Supervisor and Foreman, Checking, Sorting, Packing and Related Activities supervises performance of workers engaged in testing, sorting, weighing, counting, packing and labelling drugs and other materials by automatic or manual processes and ensures correct operations. Studies specifications and details of work to be done and instructs workers accordingly to set machines and equipment or perform manual tasks as prescribed. Gets supply or speed of conveyor belt adjusted according to performance and prescribed out turn, in case of continuous automatic system and ensures observance of sequence of operations and necessary precautions to avoid wastage. Relieves workers as necessary to avoid fatigue and keeps machines and equipment in working order. Trains new entrants. Maintains record of daily out turn. May make shift arrangements to avoid stoppages.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.4200

Supervisor and Foreman, Welding and Flame Cutting

Supervisor and Foreman, Welding and Flame Cutting supervises welding and flame cutting operation in workshop and ensures correct working. Studies drawings and other details regarding welding or cuttings to be done and arranges for jigs and fixtures, if required. Explains joints to be made, precautions necessary to retain form or avoid cracking and burning, type of welding to be done, electrodes or welding rods to be used, flux to be applied, etc., to workers to ensure correct wiring. Supervises work, enforces adaptation of prescribed precautionary measures regarding placement of gas cylinders, use of rubber gloves, welding shields, etc., and guides workers as necessary to achieve desired finish, size strengths, shape and other factors as specified. Checks welded or cut part with appropriate testing and measuring instruments and gets defects removed or rectified, if possible. Ensures maintenance of welding sets, torches, gas cylinders etc., and maintains scheduled production and discipline in section. May maintain production and material records and registers.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.4300

Supervisor and Foreman, Sheet and Structural Metal Working

Supervisor and Foreman, Sheet and Structural Metal Working supervises performance of sheet and structural metal workers, guides them as necessary and ensures production to required specifications. Studies drawings and related specifications of sheet and structural metal work to be done and plans machine, bench and hand tool operations to suit working. Explains tasks to be performed to workers, guides setting of shearing, handing, rolling, profiling other machines, sizes required, forming and development to be made, etc., and working tolerances (limit) to specified finish at every stage of work. Supervises and guides workers as required. Checks lay out joints, forming, profiling, development, fittings riveting, etc., both visually and with appropriate testing and measuring instruments during stages of production as well as finish, gets defects removed and ensures correct working. May get soldering, brazing, welding and other related operations done, if necessary. May be designated as SUPERVISOR, TINSMITHS; SUPERVISOR BOILER MAKING; SUPERVISOR STRUCTURAL AND CONSTRUCTION WORK etc. according to specialisation or type of work done.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.4401

Casting Line In charge

Casting Line In charge supervises the sand and molten metal related casting operations, overseeing the setting up and operating the casting equipment and forming and finishing of the final output.

Qualification Pack Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Reference	ASC/Q3207
QP NOS Name	Casting Line
In charge	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.4402

Casting Line Supervisor

Welder is also known as line leader/team leader, this role is similar for all types off casting processes i.e. Sand Casting Process, Gravity Casting Process and Pressure Die Casting Process. This role is responsible for supervising the various casting processes involving sand mixing, core making, mould making, metal smelting and pouring, maintaining process parameters, conducting quality checks on output product, deploying manpower as per requirement, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift

Forging Shop Shift In charge is responsible for ensuring productivity across various kinds of forging processes like Hot, Warm and Cold Forging processes to create well-formed metal components for automobiles like transmission rods, forks, flanges, shafts, axles etc. maintaining process parameters, deploying manpower as per requirement, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor. The role holder is also responsible to set the furnace and press related parameters and the process flow during operations.

Qualification Pack Details:

QP NOS Reference	ASC/Q4503
QP NOS Name	Forging Shop
Shift In charge	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.4502

Forging Shop Supervisor

Forging Shop Supervisor is responsible for supervising various kinds of forging processes like Hot, Warm and Cold Forging processes to create well-formed metal components for automobiles like transmission rods, forks, flanges, shafts, axles etc. Responsible for control by maintaining process parameters, conducting quality checks on output product, deploying manpower as per requirement, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift

Qualification Pack Details:

QP NOS Reference	ASC/Q3206
QP NOS Name	Casting Line
Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.4501

Forging Shop Shift In charge

Qualification Pack Details:

QP NOS Reference	ASC/Q4502
QP NOS Name	Forging Shop
Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.4601**Press Shop Shift In Charge**

Press Shop Shift In Charge is responsible for managing the metal pressing and sheeting activities in a line/shift to create well-formed sheet metal components for automobile frames and auto components using manual, hydraulic or pneumatic presses, defining and maintaining process parameters, conducting quality checks on output product, deploying manpower as per requirement and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift.

Qualification Pack Details:

QP NOS Reference	ASC/Q3405
QP NOS Name	Press Shop
Shift In Charge	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.4602**Press Shop Supervisor**

Press Shop Supervisor is responsible for supervising the metal pressing and sheeting activities to create well-formed sheet metal components for automobile

frames and auto components using manual, hydraulic or pneumatic presses, maintaining process parameters, conducting quality checks on output product, deploying manpower as per requirement, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift

Qualification Pack Details:

QP NOS Reference	ASC/Q3404
QP NOS Name	Press Shop
Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.4701**Welding Machine Setter**

Welder is also known as Welding Technician, this role is similar for all types of joining techniques like Gas Discharge Arc Welding (MIG, MAG, TIG), Resistance Welding (Spot Welding, Projection Welding, Butt Welding) and Automatic or Robotic Welding Process. This role is responsible for joining various types of metallic frames, structures, jigs, plates, sheets etc. using heating and melting process created through electrical power and gaseous discharge, maintaining process parameters, conducting quality checks on output product and maintaining a safe and healthy working environment on the shop floor.

Qualification Pack Details:

QP NOS Reference	ASC/Q3105
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Welding
Machine Setter	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.4702

Welding Supervisor

Welding Supervisor is also known as line leader/team leader, this role is similar for all types of joining techniques like Gas Discharge Arc Welding (MIG, MAG, TIG), Resistance

Welding (Spot Welding, Projection Welding, Butt Welding), Automatic or Robotic Welding Process, Brazing and Soldering. This role is responsible for supervising the various material

joining processes like welding, soldering and brazing for joining various types of metallic frames, structures, jigs, plates, sheets etc., maintaining process parameters, conducting quality checks on output product, deploying manpower as per requirement, guiding operatives and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift

3122.4900

Supervisor and Foreman, Blacksmith

Supervisor and Foreman, Blacksmith supervises general or mechanised blacksmith shop and ensures correct production. Studies samples or drawing of metal to be forged or item to be made. Selects metal as specified and instructs workers on heating and forging temperatures, sizes to be made, blocks and dies to be used, etc., as required. Observes heating, stamping, machine forging, hand forging and other blacksmithy operations and guides workers as necessary. Ensures correct working, sizes forged and gets defects removed as noticed. Gets furnaces and machines overhauled and repaired as necessary and maintains them in proper working order. Prevents wastage of materials, enforces discipline and safety measures and serves as liaison between workers and management. Maintains prescribed records and registers and replenishes tools and shop material stock as scheduled. May supervise normalising, tempering and other heat treating operations.

Qualification Pack Details:

QP NOS Reference	ASC/Q3104
QP NOS Name	Welding
Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.5000

Supervisor and Foreman, Tool Making/Die Making

Supervisor and Foreman, Tool Making supervises manufacture of jigs, fixtures,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

form, cutters, (special type of cutting tools), dies, gauges and other tools and ensures

Production within prescribed finish and tolerance. Studies drawings, consults Tool Engineer, if necessary, and plans lay out of work. Details workers according to prescribed

tolerance and type of tool to be made and instructs them on specifications and standard of

work required. Checks marking, filing, drilling, machining, grinding, and other operations according to type of tool being made and guides workers as necessary.

Measures

Work at every stage of production with precision instruments. Suggests operations and

gets defects removed wherever noticed. Checks completed tool and performs trial operations. Conducts reconditioning and repairs of used tool and puts them on production after trial run. Keeps tools, machines, equipment and instruments in perfect

working order and checks their efficiency for precision working from time to time.

Maintains

log book and other records and suggests designer operational modifications where desired.

May design simple tools.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.5200

Supervisor and Foreman, Machinery Fitting and Repairing

Supervisor and Foreman, Machinery Fitting and Repairing supervises fitting, assembling, overhauling and repairing of workshop and other machines and

equipment and ensures stipulated performance. Examines machine, if necessary, by actual operation, and locates defects. Studies part of assembly drawings and explains details of assembly or repair work to be done to workers, conducts work step by step, gets defective and unserviceable parts repaired to be replaced as necessary and ensures proper performance of each unit assembled or repaired. Checks performance of completed machine or equipment for work efficiency, accuracy, rigidity, etc., and gets operational snags removed, if any. Undertakes periodical repairs and overhauling of machines as scheduled and maintains them in working condition. Takes necessary steps during breakdown to get machine repaired or removed within least possible time ensuring minimum dislocation of work. Maintains repairing, overhauling and breakdown registers as prescribed. May install machine and undertake structural work.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.5300

Supervisor and Foreman, Motor Vehicle Repairing

Supervisor and Foreman, Motor Vehicle Repairing takes charge of fleet of vehicles and maintains them in road running order. Organizes work and details of workers according to nature of repairs, overhauling or servicing to be done. Gets vehicles removed dismantled and examined in respective areas and determines faults and repairs to be done. Prepares replacement and repair estimates and gets them approved, if necessary. Conducts

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

repairs or replacements of defective parts, either personally or through other agencies as required. Supervises fitting, assembling, tuning, brakes bleeding, servicing and related tasks unit by unit as appropriate and ensure correct engine and road performance by actual tests. Gets upholstery, body fitting, painting, polishing, and like tasks done, if desired. Maintains necessary records and registers and submits prescribed returns and accounts. May supervise repairs and overhauling of particular assembly (part) or complete vehicle. May be designated as GARAGE SUPERVISOR if engaged in supervising only servicing and running repairs of vehicles.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.5400

Supervisor and Foreman, Aircraft Repairing

Supervisor and Foreman, Aircraft Repairing supervises repairing and overhauling of aircrafts and ensures them to be airworthy. Examines aircraft before and after flight and determines nature of repairs and adjustments to be done. Details aeromechanics to carry out necessary repairs under his guidance and ensures airworthiness of repaired aircraft before handing over for further flight. Gets aircraft removed to hanger after scheduled hours of flight or on major breakdown for dismantling, thorough checking, complete overhauling, replacement of worn out and defective parts, necessary adjustments, etc. according to prescribed

schedule. Guides repairs of engines, fuselage, landing gears and other major units and electrical systems according to specialisation, tasks entrusted or section in which posted and ensures their stipulated performance and airworthiness before reassembling. Calculates data, checks engine horse power, prepares sketches and performs other tasks as may be required to ensure correct working. Maintains records and registers and submits prescribed returns. May train workers. May be designated according to nature of work done or section supervised.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.5600

Supervisor and Foreman, Electrical and Electronic Equipment

Supervisor and Foreman Electrical and Electronic Equipment supervises fittings assembling, installing and repairing of electrical and electronic equipment, motors, generators etc., and ensures stipulated performance. Studies drawings and wiring diagrams and explains details to workers. Checks connection, quality and thickness of wire, resistance, condensers, valves, coils, etc., gets defective parts or components replaced and ensures conformity with prescribed specifications. Guides workers in fitting, assembling and installing electrical and electronic equipment including electrical motors and generators and assists them where necessary, to test and remove snags. Tests completed unit for electrical

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

circuit, flow of current, resistance, frequency, earthing, etc. gets defects removed and ensures stipulated performance. May use substitute parts or change wiring system, if authorised. May specialize in electrical or electronic equipment and be designated accordingly.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.5700

Engineering Supervisor, Telephone

Engineering Supervisor, Telephone controls and supervises, Sub-Inspectors, Linemen, Installation Mechanics, and Maintenance Mechanics engaged in erecting, installing, maintaining and repairing telephone lines, cables, instruments and equipment in or outside telephone exchanges or in customers' premises in his area. Prepares estimates of expenditure and material required for extension of telephone connections and facilities and obtains necessary approval. Controls and supervises installation of underground and surface telephone lines and cables to provide necessary connections. Checks operational efficiency of telephone and telegraph apparatus at subscriber's premises and at respective exchanges. Supervises duties of Sub-Inspectors, Linemen, Maintenance Mechanic etc. and guides them as necessary. Organizes repair and maintenance operations during emergencies and breakdowns in commutation systems. Maintains liaison with public and looks into complaints. May supervise work of Telephone Operators.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.5800

Sub-Inspector, Telephone

Sub-Inspector Telephone Supervises Linemen, Telephone, engaged in erecting, repairing and maintaining overhead or underground telephone lines. Checks plan of line to be laid, instructs linemen on sequence of work to be executed and ensures timely supply of material required for installation, repairs and replacement, Deploys linemen as required on work site and supervises installation, repair, and installation of poles and fitting of brackets and crossbars. Guides fitting of insulators, drawing of wires, deviation of lines and setting of telephone instrument, keyboards etc. Tests personally or ensures proper testing line and removes defects if any. Locates distance and area of failure in case of breakdown using testing meters and restores communication speedily by rewiring or getting faults removed. Checks telegraph and telephone lines periodically and maintains them in working condition. May install, repair, and replace components of the telephone system.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.5900

Charge Hand, Rack Wiring (Telephone Equipment) Manufacturing

Charge Hand, Rack Wiring (Telephone Equipment Manufacturing) instructs and directs Operators, Rack-wiring, in assembling and erecting different kinds of selector racks, relay set racks, etc. Organizes and distributes work among

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

operators within sections and fills in time cards. Checks sequence of work performed by different operators, detects and removes faults and ensures that wiring is done according to circuit diagrams. Instructs and trains operators and ensures their general efficiency. Records number of persons supervised and ability to detect and rectify faults in wiring.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.6000

Line Supervisor, Electrical

Line Supervisor, Electrical supervises installation and drawing of overhead and underground electrical line for street lighting and power supply. Studies diagrams and details of line to be drawn. Visits area, determines electrical towers and poles to be installed and/or underground cables to be laid and explains working details to linemen. Marks locations of poles and tower or earth to be dug and gets them installed or set according to electricity act ensuring proper earthing. Gets brackets and other accessories fitted according to specifications. Informs power house or appropriate authority to switch off electric supply in area in which working, if necessary. Directs linemen and other workers to draw electric line as scheduled ensuring safety and minimum sagging. Guides joining of cables, fuses, junction boxes, etc., as appropriate and ensures continuity and proper installation. May do lead burning and join cables. May take charge of particular area and maintain power supply line by conducting repairs and replacements as necessary.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.6200

Supervisor and Foreman, Precision Instrument Making (except electrical)

Supervisor and Foreman, Precision Instrument Making (except electrical) supervises assembly and repairing of precision instruments, other than electrical and ensures their efficient performance. Studies drawings, sizes calculations and other details as necessary. Checks components, assemblies etc., with set standards and precision instruments, gets defects removed, if any. Explains to workers, details of assembly or work to be done, tolerance and accuracy required, operational efficiency, etc. with sketches if necessary and guides them to ensure correct working. Checks work at stages of production and also on completion and ensures stipulated accuracy. Maintains prescribed records and registers. May supervise, repairs and making of one or more types of instruments.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.6300

Supervisor and Foreman, Musical Instrument Making

Supervisor and Foreman, Musical Instrument Making supervises production of string, wind or percussion musical instruments and ensures their correct tuning. Studies specifications of individual or batch of musical instruments to be

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

made and distributes work according to type of instrument amongst specialized workers. Arranges for various parts and accessories such as reeds, cabinet, shell, metal strings, leather etc., as required and maintains necessary stock to distribute amongst workers as needed. Supervises tooling, assembling and production processes, gets defects removed as noticed and guides workers to ensure correct working. Checks tuning, fittings, finish and other details with standard sample and prescribed specifications and ensures correct production. Maintains prescribed records and registers, conducts repairs of defective instruments and performs other tasks as may be assigned to him according to nature of undertaking and responsibility held. May train new workers. May specialize in one or more of musical instruments.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.6400

Supervisor, Jewellery, Engraving and Precision Metal Workers

Supervisor, Jewellery, Engraving and Precious Metal Working supervises selection, identification and processing of jewels, making and engraving metal ornaments, inlaying metal pieces, etc., and ensures desired finish with minimum wastage. Guides workers in examining, selecting cutting and processing real and artificial pearls and stones according to design or customer's specifications. Issues correct weight of gold or silver to workers, explains size and design of ornaments to be made, engravings to be done, jewels to be set or studded, etc., and supervises work to ensure correct working with minimum loss or wastage. Selects artistic

designs for engraving inlaying or embossing metals, other than ornaments, and workers to reproduce them on articles for sale, decoration or display. Checks purity of gold and silver to determine value of used or new ornaments. May be experienced or specialized in any particular type of work and be designed accordingly. May assist customers in selecting pearls and jewels, and determining design or ornaments to be made.

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.6501

Wax Model Making Supervisor

Wax Model Making Supervisor is in charge of running the day-to-day work flow and processes of the wax model making department. The individual allocates work to subordinate workers, trains and educates them, instructs about the job to be performed on daily basis, checks quality of output, manages departmental accounts along with team and systems, and interacts with other departments in order to produce wax trees as per production planning and delivers on time.

Qualification Pack Details:

QP NOS Reference	G&J/Q2606
QP NOS Name	Wax Model
Making Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code 3122

Title Manufacturing Supervisors

3122.6502

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Product Development Manager

Product Development (PD) Manager: Also known as 'PD head' in the jewellery manufacturing industry, the PD Manager is in charge of the product development department and plays critical role in the jewellery designing and development. The individual at work co-ordinates with the stakeholders such as customers, marketing team, production team, designers and merchandisers to develop the practical, marketable and fashionable jewellery products. The individual recruits, trains and manages team of designers.

Qualification Pack Details:

QP NOS Reference	G&J/Q2303
QP NOS Name	Product
Development Manager	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6503

Planning Supervisor

Planning Supervisor is in charge running the day-to-day work flow and processes of the planning department. The individual on this job, allocates work to subordinate workers, trains and educates them, instructs about the job to be performed on daily basis, checks quality of output, manages team and systems, carries out performance appraisal, ensures safety of the diamond, and interacts with other departments in order to ensure accurate planning to derive maximum value from a rough as per company's objectives and delivers on time.

Qualification Pack Details:

QP NOS Reference	G&J/Q4202
QP NOS Name	Planning
Supervisor	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6504

Blade Sawing Supervisor

Blade sawing supervisor is in charge running the day-to-day work flow and processes of the blade sawing department. The individual on this job, allocates work to subordinate workers, trains and educates them, instructs about the job to be performed on daily basis, checks quality of output, manages team and systems, carries out performance appraisal and ensures safety of the diamond, in order to ensure accuracy in cut as per marking to derive maximum value from a rough as per company's objectives and delivers on time.

Qualification Pack Details:

QP NOS Reference	G&J/Q4404
QP NOS Name	Blade
Sawing Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6505

Laser Supervisor

Laser supervisor is in charge running the day-to-day work flow and processes of the laser cutting department. The individual on this job, allocates work to subordinate

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

workers, trains and educates them, instructs about the job to be performed on daily basis, checks quality of output, manages team and systems, carries out performance appraisal, ensures safety of the diamond, and interacts with other departments in order to ensure accurate cut as per marking to derive maximum value from a rough as per company's objectives and delivers on time.

Qualification Pack Details:

QP NOS Reference	G&J/Q4404
QP NOS Name	Laser
Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6506

Bruting Supervisor

Bruting Supervisor is also known as Bruter or Coner, the auto bruter provides round girdle and cone shape to the sawed rough diamond. The individual works with bruting machine and another diamond or wheel (rotating in opposite direction to the diamond being bruted) to give the rough diamond round and cone shapes. A bruter must be careful: so that excess bruting does not cause too much stone loss or sub-optimal bruting causes the girdle to disappear at a later stage of processing.

Qualification Pack Details:

QP NOS Reference	G&J/Q4505
QP NOS Name	Bruting
Supervisor	
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6507

Blocking Supervisor

Blocking Supervisor is in charge running the day-to-day work flow and processes of the blocking department. The individual on this job, allocates work to subordinate workers, trains and educates them, instructs about the job to be performed on daily basis, checks quality of output, manages team and systems, carries out performance appraisal, ensures safety of the diamond, and interacts with other departments in order to ensure accurate basic four (or eight) top and bottom facets of the diamond as per company's objectives and delivers on time.

Qualification Pack Details:

QP NOS Reference	G&J/Q4606
QP NOS Name	Blocking
Supervisor	
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6508

Polishing Supervisor

Polishing Supervisor is in charge running the day-to-day work flow and processes of the faceting and polishing department. The individual on this job, allocates work to subordinate workers, trains and educates them, instructs about the job to be performed on daily basis, checks quality of output, manages team and systems, carries out performance appraisal, ensures safety of the diamond, and interacts with other departments in order to produce lots of faceted and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

polished diamonds as per company's objectives and customer's requirement and delivers on time.

Qualification Pack Details:

QP NOS Reference	G&J/Q4707
QP NOS Name	Polishing
Supervisor	
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6509

Final Assortment Supervisor

Final Assortment Supervisor is also known as QC Supervisor or Grading Supervisor, the final assortment supervisor is in charge running the day to day work flow and processes of the final assortment department. The individual at work allocates work to subordinate workers, trains and educates them, instructs about the job to be performed on daily basis, checks quality of output, manages team and systems, carries out performance appraisal, ensures safety of the diamond, and interacts with other departments in order to produce lots of polished diamonds as per company's objectives and customer's requirement and delivers on time.

Qualification Pack Details:

QP NOS Reference	G&J/Q4909
QP NOS Name	Final
Assortment Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6511

Supervisor Faceting and Polishing

Polishing Supervisor is in charge running the day-to-day work flow and processes of the faceting and polishing department. The individual on this job, allocates work to subordinate workers, trains and educates them, instructs about the job to be performed on daily basis, checks quality of output, manages team and systems, carries out performance appraisal, ensures safety of the diamond, and interacts with other departments in order to produce lots of faceted and polished diamonds as per company's objectives and

Customer's requirement and delivers on time.

Qualification Pack Details:

QP NOS Reference	G&J/Q6707
QP NOS Name	Supervisor
Faceting and Polishing	
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.6600

Supervisor and Foreman, Photo-Litho, Photo Engraving and Dark Room Operations

Supervisor and Foreman, Photo-Litho, Photo Engraving and Dark Room Operations guides and supervises photographic, photo engraving, developing and related tasks for block making and photo-litho operations in printing press. Studies nature of work to be done and plans work according to operations and order of priority for printing. Instructs cameramen, photo-

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

engravers, darkroom and related workers on prescribed finish and specifications required and guides and supervises their performance. Gets defects removed and ensures minimum wastage and correct production. Maintains prescribed records and assists workers as necessary. May make photo-sensitive glass plates for use in camera, enlarge important microfilms, retouch lithographic printing plates, etc., if required.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.6700

Supervisor and Foreman, Printing and Related Work

Supervisor and Foreman, Printing and Related Work supervises composition, type-setting, printing, binding and related general tasks, other than photo-engraving and dark room operations, in printing press and ensures correct operations, in printing press and ensures correct output. Examines manuscript for layout, technical aspects, etc., and plans work accordingly. Arranges for machines, equipment and materials, and distributes work amongst Composers, Printers, Book Binders, etc., according to quantum of work and nature of printing required. Gets proof copies compared and corrected with manuscript, ensures compliance with other special instructions, if any, and instructs Printers to print required number of copies. Checks work frequently, directs necessary adjustments to be made and ensures desired output. Supervises stitching, binding, trimming etc., and ensures production to required specifications. Keeps machines and equipment in proper working order by getting repairs and overhauling done as required and

maintains prescribed records and registers. May specialize in particular branch of work or type of printing.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.6900

Supervisor and Foreman, Food Processing/Production Supervisor

Supervisor and Foreman, Food Processing supervises and guides workers engaged in processing and preserving food by various mechanical and manual processes. Guides workers in milling and parching food grains, crushing and pressing oil seeds, making 'gur', 'khandsari' and sugar by open or vacuum pan system, preserving and canning food stuff, making biscuits, candy, chocolate, sweet-meats, etc. by mechanical, manual or combined operations as necessary according to method and nature of production. Watches heating and baking temperatures, adjustments of machines and equipment, mixing of proper quality and quantity of ingredients, etc. and directs workmen accordingly to suit requirements. Ensures quality and rate of production and maintains prescribed records. May regulate temperature, adjusts machines and equipment, mix ingredients and perform other tasks. May be designated according to section or work supervised (Excluded are other food processing supervisory staff and Technologists described separately).

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.7000

Juice Clarification Supervisor

Manufacturing Chemist; Shift Chemist; Juice Clarification Supervisor; Juice Supervisor; Clarification House Supervisor(Sugar) co-ordinates and supervises all operations connected with the syrup making from raw juice, weighing to final sulphitation in sugar factory. Supervises and checks weighing or measuring of raw juice coming from mill house, and ensures correct maintenance of its records. Directs heating, carbonation, filtration Sulphitation, evaporation, and other for prescribed treating of juice and making of specified type of syrup. Supervises operations of lime kiln, sulphur furnace etc., and controls making of milk of lime and sulphur dioxide for clarifying juice by carbonation or Sulphitation process. Checks temperature and pressure of heaters, filters press and evaporators, tests juice with testing paper, and performs other functions as necessary for manufacturing of specified type of juice and syrup. Maintains log book giving hourly and daily operational details. May get overhauling and necessary repairs done to maintain equipment in working order. May check juice with hydrometer and indicator to maintain specified standard.

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.7100

Supervisor and Foreman, Brewing, Aerated Water and Beverage Making

Supervisor and Foreman, Brewing, Aerated Water and Beverage Making

supervises and guides workers engaged in making beer, liquors, syrup, aerated water and other types of drinks and beverages and ensures standard quality of production as prescribed. Arranges for necessary materials and ingredients and guides workers in various operations such as brewing, mashing, fermenting, filtering, making syrups and sherbets, filling bottles, injecting carbon-dioxide into filled bottles, bottling etc., according to nature of production. Gets samples tested while processing and directs necessary adjustments and modifications. Enforces safety measures, compliance with excise and related rules and regulations, prescribed percentage of alcohol content, etc., and ensures standard quality of production. Maintains records and registers and submits prescribed returns. May set machines and equipment. May be designated according to nature of production or section supervised. (Excluded are Technologists, and Chemists described elsewhere).

ISCO 08 Unit Group Details:

Code 3122
Title Manufacturing Supervisors

3122.7200

Supervisor and Foreman, Dairy Products/Dairy Technologist

Supervisor and Foreman, Dairy Product supervises and guides workers engaged in processing dairy products and ensures prescribed quality of manufacture. Guides workers in skimming and pasteurising milk, separating specified quantity of cream from milk, churning butter, making cheese and other dairy products either by mechanical, manual or combined processes and ensures prescribed quality and quantity of production. Tests or gets samples tested while processing, directs

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

necessary adjustments to be made and maintains hygienic condition in area supervised. Controls bottling, mixing and packing operations according to type and quality of production and maintains necessary records and registers. May be designated according to section supervised or product processed.

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.8001

Rubber Nursery Supervisor

Rubber Nursery Supervisor supervises and give technical advice on all the nursery activities to all workers. He is responsible for the timely completion of all seasonal activities, smooth running of the nursery and production of quality planting materials as envisaged by the organization.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0933
QP NOS Name	Rubber
Nursery Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3122
Title	Manufacturing Supervisors

3122.9900

Manufacturing Supervisors, Other

Manufacturing Supervisors, Other include Manufacturing supervisors who co-ordinate and supervise the activities of Process Control Technicians, Machine Operators, Assemblers, and other Manufacturing Labourers not elsewhere classified

ISCO 08 Unit Group Details:

Code
Title

Family 3123 Construction Supervisors

Construction Supervisors, co-ordinate, supervise and schedule the activities of workers engaged in the construction and repair of buildings and structures.

3123.0100

Work Supervisor, Construction

Work Supervisor, Construction supervises construction and repairs of buildings, hutments, and other structures and ensures working to required specifications. Receives instructions from Building Overseer regarding sizes and specifications of structure to be built, composition of mortar and other materials to be used and instructs Masons and other workers accordingly. Gets bricks, sand, cement, mosaic chips, etc., stacked in proper order and ensures security against loss and wastage. Keeps watch on construction being built, ensures use of proper materials and mortar and measures it periodically or at end of day to calculate wages earned by workers. Ensures building according to plan and gets defects removed or reconstructed as directed by Overseer. Maintains material, attendance and other records as necessary, calculates wages of workers engaged and ensures proper. Use of men and material. May prepare bills, arrange for MASONs, CARPENTERS, LABOURERS and other workers and arrange for their payment, if necessary.

ISCO 08 Unit Group Details:

Code	3123
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Construction Supervisors

3123.0200

Supervisor and Foreman, Insulation

Supervisor and Foreman, Insulation supervises application of insulating materials in buildings, refrigeration and air-conditioning equipment, boilers, steam pipes, etc., to maintain pressure stipulated temperature, prevent reverberation of sound and like purposes. Studies drawings and specifications of insulation to be done. Arranges to draw or procure required quantity of insulating materials and accessories such as mineral wool, shredded or sheets of cork; asbestos etc., and hands them over to workers as required, with necessary instructions for their application. Supervises work, ensures correct application of required type and thickness of insulating material and gets defects removed, if any, to achieve desired result. Maintains necessary records and ensures proper use of men and material. May check insulation done with gauges and meters and report results achieved.

ISCO 08 Unit Group Details:

Code 3123

Title Construction Supervisors

3123.0300

Supervisor and Foreman, Plumbing and Pipe Fitting

Supervisor and Foreman, Plumbing and Pipe Fitting supervises workers engaged in pipe fitting and plumbing operations and guides them as necessary to ensure correct laying and fitting of pipes, drainage system, etc. Studies lay out drawings of pipelines or sanitary fittings depending on tasks to be

performed and instruct workers accordingly. Supervises laying and joining of pipes, making connections with soak pit, fitting, sanitary appliances, cleaning blocked drain pipes, removing leakages, etc. and ensures proper installation and repairs done. Checks pipe lines and sewerage systems under his charge periodically or as required and maintains them in proper working order. Maintains records and registers and submits reports as required. May guide workers in installation of gas and hume pipes, making water and gas tight joints, removing water pipe leakages by lead burning, etc., if necessary.

ISCO 08 Unit Group Details:

Code 3123

Title Construction Supervisors

3123.0301

Plumbing Foreman

Plumbing Foreman is responsible for supervising, co-ordinating and scheduling the activities of supervisors, plumbers and other staffs.

Qualification Pack Details:

QP NOS Reference PSC/Q0113

QP NOS Name Plumbing

Foreman

NSQF Level 5

ISCO 08 Unit Group Details:

Code 3123

Title Construction Supervisors

3123.0302

Plumbing Supervisor

Plumbing Supervisor is responsible for supervising, co-ordinating and scheduling the activities of plumbers and other staffs.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	PSC/Q0114
QP NOS Name	Plumbing
Supervisor	
NSQF Level	6

electricity act. May supervise installation of temporary wiring. May supervise installation of geyser, air-conditioners, booster pumps and other domestic appliances.

ISCO 08 Unit Group Details:

Code	3123
Title	Construction Supervisors

ISCO 08 Unit Group Details:

Code	3123
Title	Construction Supervisors

3123.0500

Supervisor and Foreman, Painting

Supervisor and Foreman, Painting supervises sign writing and application of paint, varnish, distemper or lacquer on metal, wood, building, glass and other surfaces and ensures correct finish. Examines surface of structure or article to be worked upon and decides shade and type of paint, mixture or varnish to be used according to specifications or customers' requirements. Directs workers to smoothen surface to be painted or varnished to required finish by scrubbing chemical treatment or by polishing with emery or glass paper as necessary. Supervises preparation of base for spray and high class painting by application of putty on surface and its smoothening for applying first coat of paint. Guides workers in mixing, straining of paints and varnish to required shade and consistency and supervises painting, smoothening and final polishing operations to ensure required gloss and finish desired. Maintains prescribed records and keeps tools and equipment in working order. May design stencils for brush and screen-printing.

Electrical Supervisor, Wiring,

Electrical Supervisor, Wiring plans, prepares, estimates and supervises installation of commercial, industrial and domestic wiring in factories, establishments and residential buildings. Visits site, decides number of points to be fixed and estimates costs according to type of wiring to be installed. Plans and prepares wiring diagram according to building layout, power and light points to be fixed, equal distribution of load, minimum exposure to weather, easy access for repairs and other factors as necessary to suit customer's requirements. Marks location of points, cut-outs, ceiling roses junction boxes etc., and explains circuit to be drawn to Wireman. Arranges for materials, supervises installation of wiring and guides workers as necessary to ensure conformity with safety and electricity rules. Tests whole wiring systems with merger on completion of work to ensure continuity and proper installation. Connects to main switch fixed at convenient place and certifies on prescribed form that there is no leakage and wiring has been done in accordance with

ISCO 08 Unit Group Details:

Code	3123
Title	Construction Supervisors

3123.0600

Painting and Surface Treatment Line In Charge

Painting and Surface Treatment Line In Charge is responsible for supervising the various painting processes like surface treatment, preparation and top coat on different types of metallic frames, structures, jigs, plates, sheets etc. and managing operations for a line or a shift to fulfil the production plan as shared with the team

Qualification Pack Details:

QP NOS Reference	ASC/Q3306
QP NOS Name	Painting and Surface Treatment Line In Charge
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3123
Title	Construction Supervisors

3123.0700

Painting Supervisor

Painting Supervisor is responsible for supervising the various painting processes like surface treatment, preparation and top coat on different types of metallic frames, structures, jigs, plates, sheets etc. and managing operations for a line or a shift to fulfil the production plan as shared with the team.

Qualification Pack Details:

QP NOS Reference	ASC/Q3305
QP NOS Name	Painting Supervisor
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3123
Title	Construction Supervisors

3127.9900

Supervisors and Foremen and Related Trades Workers in Painting, Building Structure Cleaning, Other

Supervisors and Foremen and Related Trades Workers, in Painting, Building Structure Cleaning, other include supervisory workers engaged in painting, building structure cleaning not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3123
Title	Construction Supervisors

Group 313

Process Control Technicians

Process Control Technicians operate and monitor switchboards, computerized control systems, multi-function process control machinery and maintain processing units in electrical power generation and distribution, wastewater, sewage treatment and waste disposal plants, chemical, petroleum and natural gas refineries in metal processing and other multiple process operations.

Occupations in this Group are classified into the following Families:

3131	Power Production Plant Operators
3132	Incinerator and Water-Treatment Plant Operators
3133	Chemical Processing Plant Controllers
3134	Petroleum and Natural Gas Refining Plant Operators
3135	Metal Production Process Controllers

3139 Process Control Technicians, Not Elsewhere Classified

Family 3131 Power Production Plant Operators

Power-production Plant Operators operate, monitor and maintain switchboards and related equipment in electrical control centres which control the production and distribution of electric or other power in transmission networks. The equipment operated includes reactors, turbines, generators and other auxiliary equipment in electrical power generating stations.

3131.0100 Stationary Engine Driver, Steam

Stationary Engine Driver, Steam; Stationary Engine Operator Steam; Steam Engine Driver operates stationary steam engine to provide motive power for other equipment and plants. Checks and adjusts controls and starts engine; observes gauges and meters to ascertain running order of engine and makes further adjustments, if necessary; maintains water supply and steam pressure to required level, lubricates working parts, tightens loose parts and performs other servicing tasks to keep engine in running order. May make minor repairs. May check and direct working of boiler.

ISCO 08 Unit Group Details:

Code 3131
Title Power Production Plant Operators

3131.0200 Stationary Engine Driver, Internal Combustion

Stationary Engine Driver, Internal Combustion; I.C. (Internal Combustion) Engine Driver; Stationary Engine Operator, Internal Combustion operates and maintains internal combustion engine run on petrol or diesel oil or gas to generate motive power to drive other equipment and plants. Checks oil level in engine tank by inserting graduated metal rod; turns fuel valve to admit oil to cylinder and starts engine; observes meters and gauges to determine operating condition and makes adjustments or minor repairs to ensure efficient performance; maintains supply of fuel, lubricates working parts, tightens loose parts and performs other servicing tasks to keep engine in good running order. May fit belt to wheel of engine to run other attached equipment and machinery. May be designated as DIESEL/GAS/PETROL/OIL ENGINE DRIVER according to type of fuel used.

ISCO 08 Unit Group Details:

Code 3131
Title Power Production Plant Operators

3131.0300 Turbine Operator, Steam

Turbine Operator, Steam; Turbo generator Operator, Steam operates steam powered turbine which drives generators for producing electricity. Starts turbine by opening valve for supply of steam into turbine to rotate turbine wheels; runs turbine at low speed for pre-determined length of time and notifies the Switch-Board Operator when ready to run turbine at full working speed; increases speed of turbine and ensures that automatic regulator maintains correct working speed; notifies Switch-Board Operator that turbine can be synchronised with other power units in plant. Observes gauges and meters to ensure proper

handling of load by turbine and its proper functioning; alters power output of turbine and makes other adjustments as necessary. Cuts out unit evaporator to conduct blow down of turbine for periodic overhauling. May keep records of instrument readings. May repair and overhaul equipment and other auxiliaries.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.0400

Turbine Operator, Hydel

Turbine Operator, Hydel operates water-powered turbine which drives generators for producing electricity. Starts turbine by opening valves of pen-stock pipes to supply water to move turbine wheels; regulates flow of water into turbine to run it at required speed; checks operation of turbine for smooth and steady production of electricity by generators; controls water pressure in turbine, and safeguards against water leakage; ensures adequate cooling of turbine bearing by steady and continuous circulation of oil; observes gauges and meters to ascertain whether turbine can handle load and if working efficiently; checks for any abnormal sounds or movements of turbines. Alters power output of turbine and makes other adjustments, as necessary. May keep records of instrument readings at regular intervals. May repair and overhaul turbines, when required.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.0500

Power Plant Operator

Power-Plant Operator operates boilers, turbines, generators, and auxiliary equipment at generating plant to produce electricity: Monitors control board and regulates equipment, according to procedures and information obtained from recording and indicating instruments. Adjusts controls of water and cold feed systems, blowers, and igniters to start up or shut down boilers. Controls operation of boiler auxiliary equipment, such as water and vacuum pumps, coal driers and pulverisers, steam condensers, and soot blowers, to ensure efficient operation of boilers. Adjusts boiler controls to provide steam at specified temperature and pressure for turbine loads according to power demands. Adjusts controls to regulate speed, voltage, and phase of incoming turbines to coincide with voltage and phase of power being generated. Synchronizes incoming generating units with units in operation and closes circuit breaker at exact instant of coincidence. Monitors gauges to determine effect of generator load on related equipment, such as bus bars and voltage regulators. Adjusts transformer controls to regulate flow of power between generating stations and substations. Operates switchgear to regulate and transfer power loads to protect maintenance workers engaged in repairing or cleaning equipment. Records malfunctions of equipment, instruments, or controls on log sheet.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.0600

Electrical Switch Board Operator

Electrical Switch Board Operator: Switch Board Assistant; Switch Board Attendant; Sub-Station Attendant (Power Station) operates and attends switches and switch-gear on switch boards to regulate flow of electric current from power house or sub-station to different feeding units. Synchronises generators and motor connectors to bus bar (conductor forming common junction between two or more electrical circuits) receiving electrical current from other generating units by operating switches on panel board. Operates various controls to switch on and off current supply to different feeder units depending on load-requirements and as per instructions of superiors. Controls and regulates voltage, frequency and power factor according to demand and system condition. Disconnects generator from bus bar to decrease power output or to cut out faulty units and equalises load among remaining operating generators. Maintains records of switching operations and generator output at regular intervals and submits daily reports to superiors. Reports to superiors of major breakdown, power failure and malfunctioning of switch board equipment, instrument or relays. Isolates feeding units in case of break-down and fixes danger notices. May clean panel board periodically. May overhaul and repair panel equipment. May supervise working and cleaning of static or rotary electrical plants. May check voltage and specific gravity of stand by storage batteries, maintain them and keep them fully charged.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.0700

Oiler and Greaser, Stationary Engine and Machinery

Oiler and Greaser, Stationary Engines and Machinery cleans and lubricates moving parts or wearing surfaces of stationary engines or machinery. Fills oil cans, grease-guns with required type of lubricant; injects or pours lubricant on moving parts or into holes, oil cups, or reservoirs according to lubricating charts, instructional records or own judgement and knowledge of engine or machine to be lubricated; adjusts feed of oil from cups or reservoirs so that proper quantity reaches moving parts. Forces grease into bearings with grease guns or packs grease cups by hand and screws down cup to force grease to moving parts. Forces oil or smears grease on friction surfaces such as driving chains and guides. Keeps sumps (oil reservoir) for lubricating systems filled with oil. Cleans machine and equipment. May make minor adjustments, tighten loose parts and assist Machine Operator or Repairman. May keep records of tasks performed.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.0800

Nuclear Plant Control Operator

Nuclear Plant Control Operator; controls nuclear reactor that produces steam for generation of electric power and co-ordinates operation of auxiliary equipment: Adjusts controls, under supervision, to start and shut down reactor and to regulate flux level, reactor period, coolant temperature, and rate of flow, control rod positions, and other control elements that affect power level

within reactor, following standard instructions and prescribed practices. Dispatches orders and instructions to plant personnel through radiotelephone or intercommunication system to co-ordinate operation of such auxiliary equipment as pumps, compressors, switchgears, and water-treatment systems. May assist in preparing, transferring, loading, and unloading nuclear fuel elements. May control dual purpose reactors that produce plutonium and steam. May control operation of auxiliary equipment, such as turbines and generators.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.0900

Breaker Tender

Breaker Tender; Breaker, Pit Attendant tends machines that break coal into lumps of specified size preparatory to pulverizing. Starts the revolving steel drum containing coal to break the coal as it tumbles and to pass through perforations in the drum. Starts conveyors to transfer coal to and from the breaker. Observes flow of material on belt to detect and remove foreign materials to clean jams. Removes metal from pocket of magnet separator, lubricates breaker with grease gun and oil can. Cleans work area using shovel and broom. May assist with repair work.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.1000

Hopper Attendant/Hopper Machine Operator

Hopper Attendant operates stationary or mobile hoppers mechanically by controlling valves or other devices to feed material into bins, kilns, furnaces, crushes, mines, etc. or to carry by conveyors or elevators-for further operations or filling. Operates machine by manipulating levers and switches to start hoppers for collecting materials and emptying them. Ensures that crushed material such as quartz, lime from crusher machine is dropped into the pit for conveying by hoppers, belt screw crushed material and emptying it into storage bins or tanks for further processing. Regulates speed or movement of hopper by control of lever or valve to carry correct quantity of material into kilns, furnaces, bin, tank etc. as necessary. Keeps place clean and tidy. May operate crusher machine. May replace or repair broken hopper buckets or baskets.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.1100

Load Dispatcher

Load Dispatcher co-ordinates activities of personnel engaged in operating generating stations, substations, and lines of electric power system or electrified railway system to ensure adequate production and distribution of electricity to meet power demands. In smaller systems, calculates load estimates according to corrected weather and consumer-demand of electric power required to meet fluctuating demands, or in larger systems receives load schedule for various generating stations. Monitors

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

control board showing operating condition of lines and equipment throughout the system and makes adjustments or directs workers to make adjustments as conditions warrant. Notifies maintenance crew of location and de-energisation of troubled sector, and verifies that workers are clear of repaired equipment before directing energisation of the circuit. Contacts other utilities by telephone to arrange exchange of power according to existing contracts or during emergency and co-ordinates tie-in with other systems. Compiles operational records. May operate console of computer, which is programmed to automatically perform load-control functions. May calculate discharge rate of water in reservoirs utilising reports of rain, river flow, and water level in reservoirs, and directs setting of Watergates at hydroelectric plants to co-ordinate water flow and power generation for irrigation and flood control requirements.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

3131.9900

Power Production Plant Operators, Other

Power Production Plant Operators, Other include operators who operate, monitor and maintain switchboards and related equipment in electrical control centres which control the production and distribution of electric or other power in transmission networks not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3131

Title Power Production Plant Operators

Family 3132

Incinerator and Water-Treatment Plant Operators

Incinerator and Water-Treatment Plant Operators monitor and operate computerized control systems and related equipment in solid and liquid waste treatment plants to regulate the treatment and disposal of sewage and wastes, and in water filtration and treatment and distribution of water.

3132.0100

Ice Maker

Ice Maker tends refrigerating equipment that freezes water into ice, performing any combination of following tasks: Opens valves to fill containers with specified amounts of water, and lowers containers into freezing tanks, using hoist. Inserts air bubbler into containers and starts agitator in freezing tank to ensure uniform freezing. Siphons or pumps water containing foreign matter from centres of partially frozen ice blocks, using suction pump, and refills container with fresh water. Flushes surfaces of ice blocks with hose. Removes container from tank, using hoist, and immerses it in warm water or places it in steam bath to free ice from container sides. Positions cans on dumping pivot and pushes buttons to tilt pivot and dump ice onto conveyor or platform. Adds prescribed amounts of materials into mixing vats and starts agitator to mix brine solution for freezing tanks. May turn valves to regulate compressors and condensers.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.0200

Reservoir Caretaker

Reservoir Caretaker controls equipment to regulate water flow and water level in reservoirs: Turns valves and pulls levers to regulate water flow through aqueduct and floodgates. Reads gauges and meters to control specified water flow, water levels, and water pressure in reservoir. Records data, such as water level, turbidity, temperature, and flow rate. Lubricates and performs minor repairs to equipment, using hand tools. Patrols area to detect property damage and to prevent trespassing. May tend heating apparatus to prevent freezing of valves and gates. May add chemicals to water to retard organic growth such as algae.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.0300

Gas-Compressor Operator

Gas-Compressor Operator operates steam or internal combustion engines to transmit, compress, or recover gases, such as butane, nitrogen, hydrogen, and natural gas in various production processes: Moves controls and turns valves to start compressor engines, pumps, and auxiliary equipment. Monitors meters, gauges, and recording instrument charts to ensure specified temperature, pressure, and flow of gas through system. Observes operation of equipment to detect malfunctions. Records instrument readings and operational changes in operating log. May operate purification tanks to purify air or by-product gases. May tend pumps to mix specified amounts

of acids and caustics with water for use in purifying gases. May perform minor repairs on equipment, using hand tools. May conduct chemical tests to determine sulphur or moisture content in gas.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.0400

Wastewater-Treatment-Plant Operator

Wastewater Treatment Plant Operator operates sewage treatment, sludge processing, and disposal equipment in wastewater (sewage) treatment plant to control flow and processing of sewage: Monitors control panels and adjusts valves and gates manually or by remote control to regulate flow of sewage. Observes variations in operating conditions and interprets meter and gauge readings and tests results to determine load requirements. Starts and stops pumps, engines, and generators to control flow of raw sewage through filtering, settling, aeration, and sludge digestion processes. Maintains log of operations and records meter and gauge readings. Gives directions to SEWAGE-DISPOSAL WORKERS in performing routine operations and maintenance. May collect sewage sample, using dipper or bottle and conduct laboratory tests, using testing equipment, such as colorimeter. May operate and maintain power generating equipment to provide steam and electricity for plant.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.0500

Heating-Plant Superintendent

Heating-Plant Superintendent supervises and co-ordinates activities of workers engaged in producing and distributing steam, heat and hot water in commercial or industrial establishments, and in maintaining mechanical equipment, such as boilers, pipe systems, pump, hot water generators, hot air furnaces, and air-cooling units.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.0600

Pump-Station Operator, Waterworks

Pump Station Operator, Waterworks operates pumping equipment to transfer raw water to treatment plant, or distribute processed water to residential, commercial, and industrial establishments: Turns valves, pulls levers, and flips switches to operate and control turbine-or motor-driven pumps that transfer water from reservoir to treatment plant, or to transfer processed water to consumer establishments. Reads flow meters and gauges to regulate equipment according to water consumption and demand. Inspects equipment to detect malfunctions, such as pump leaks or worn bearings. Repairs and lubricates equipment, using hand tools. Records data, such as utilization of equipment, power consumption, and water output in log. May operate equipment to treat and process raw

water. May test water for chlorine content, alkalinity, acidity, or turbidity.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.0700

Air Compressor Operator

Air Compressor Operator; Compressor Driver operates and services power-driven air-compressor which generates and supplies compressed air to drive pneumatic tools, hoists and other mechanical equipment. Starts power unit and builds up required pressure; manipulates controls or sets automatic regulator to maintain correct supply of air to equipment; observes pressure, temperature and other gauges and makes further adjustments to controls as necessary; cleans and oils equipment, tightens loose parts and performs other servicing tasks to keep compressor in good running order. May connect pipelines from compressor to various equipment and make minor repairs. May operate mechanically or electrically driven compressor. May be designated as AIR COMPRESSOR OPERATOR STEAM; AIR COMPRESSOR OPERATOR, DIESEL etc. according to power used.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.0800

Ammonia Compressor Attendant

Ammonia Compressor Attendant operates ammonia compressor and auxiliary unit

for making ice by freezing water. Examines thermometers, pressure gauges and other instruments to ascertain working condition of plant, operates switches, thermostats and other controls to maintain desired temperatures; opens, closes and adjusts hand valves, associated with compressor and condenser, to control rate of suction and discharge of ammonia temperature, determining proper valve setting by observation of pressure and temperature gauges and knowledge of pressure and temperature required for efficient operation; ensures proper covering of freezing tank of plant with saw dust, and proper circulation of brine solution around tank; measures specific gravity of brine (saltwater) periodically; lowers cans containing water into freezing tank and covers lid; removes cans from freezing tank after ice is formed; separates ice blocks from cans after little thawing. Maintains prescribed records of meter readings, cleans equipment, and performs other tasks to keep system in good running order. May repair and overhaul plant. May adjust specific gravity by adding water, salt, or calcium chloride to solution.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.0900

Air Conditioning and Refrigeration Plant Attendant

Air-Conditioning and Refrigeration Plant Attendant; Refrigeration System Operator operates air-conditioning or refrigeration system for preserving food, providing cooling or warming media for industrial processes, cooling or warming buildings, or for other purposes. Manipulates

various switches, at central control board to start and stop electric motors, pumps, compressors, coolers and other related equipment of refrigeration and air-conditioning system; observes readings in various meters, gauges and instruments regarding temperature, pressure and voltage of system to ascertain working condition of plant; operates switches, thermostats, rheostats and other controls to maintain desired level of temperature; cleans and resets generator brushes, replaces burned fuses and defective devices, thaws frozen valves, cleans equipment and performs other tasks such as oiling, greasing, cleaning of air and water filters etc. to keep system in good running order. May keep records of temperatures produced. May assist Refrigeration Mechanic in dismantling equipment for repairs.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.1000

Pump Man

Pump Man; Pump Operator; Pump House Attendant; Pump Driver; operates one or more power-driven machines for pumping, storing and supplying liquids or other fluid materials or for dewatering purposes. Starts pump, observes its operation and adjusts controls to maintain correct rate of pumping; stops pump when required quantity of fluid has been moved; cleans, oils and greases pump, tightens loose parts and performs other servicing tasks to keep pump and equipment in good running order and safe condition. May do minor repairs. May connect pipe lines from pump to vessel to be filled or emptied. May be designated

according to type of pump operated or type of material (fluid) pumped, as PUMP OPERATOR, STEAM; PUMP OPERATOR, DIESEL; PUMP OPERATOR (ELECTRIC); TUBE WELL OPERATOR.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.1100

Exhaust Fan Operator

Exhaust Fan Operator; Ventilating Equipment Operator operates power-driven motors, fans and related equipment to control ventilating system in mines, factories, stores and other establishments to remove foul air and gases from enclosed atmosphere. Inspects fans, motors and other parts of ventilating system; lubricates moving parts of equipment by filling cups with grease or oil; regulates speed of fans and adjusts dampers in ventilating ducts to control flow of air; makes minor repairs to equipment performing duties, such as tightening nuts, bolts and loose parts, replacing old or worn parts in thermostats, cleaning or replacing motor brushes. Assists Electrician or Electrical Fitter in dismantling fans and motors for repairs. May maintain air-cooling, air-conditioning, or air purification equipment. May be designated as FAN OPERATOR, CENTRAL HEATING; HEATING EQUIPMENT OPERATOR if operating central heating system.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.1200

Blower Operator

Blower Operator operates electrically driven blower for supplying air blast for converters, cupolas and blast furnaces. Starts blower and manipulates controls to maintain correct supply of air to furnace; observes further adjustments to controls, as necessary; checks pressure and increases or decreases it, as necessary, by changing engine speed; opens and closes duct chamber to regulate flow of air into different chambers of premises. Cleans and oils motors periodically. Many repair air ducts or tubes.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.1300

Incinerator Operator

Incinerator Operator; Furnace Man, Refuse Disposal controls equipment to burn garbage, refuse and sludge cake in incinerator plant. Directs workers in feeding waste material into furnace. Starts forced air-draft blower and turns valve to admit liquid or gaseous fuel or signals workers to shovel coal into furnace. Lights fire in furnace by pressing electric-arc ignition switch or by other device. Observes and adjusts combustion control devices, such as pyrometers, meters and burners to maintain specified temperatures and to obtain efficient combustion. Moves levers to open grates for ash removal and turns valve on waterline to sprinkle and settle ashes. May tend low pressure and settle ashes. May tend low pressure boiler to provide steam to heat plant. May repair furnace

refractory lining with fire-brick and replace and adjust machine parts.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

3132.9900

Incinerator and Water-Treatment Plant Operators, Other

Incinerator and Water-Treatment Plant Operators, Other include Plant Operators who monitor and operate computerized control systems and related equipment in solid and liquid waste treatment plants to regulate the treatment and disposal of sewage and wastes, and in water filtration and treatment plants to regulate the treatment and distribution of water not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3132

Title Incinerator and Water-Treatment Plant Operators

Family 3133 Chemical Processing Plant Controllers

Chemical processing plant controllers operate and monitor chemical plants and adjust and maintain, processing units and equipment which distil, filter, separate, heat or refine chemicals.

3133.0100 Process Man, Chemical

Process Man, Chemical process chemical ingredients by mixing in specific proportions, heating, distilling, cooling,

filtering, blending, percolating, refining, pulverising, etc. for causing chemical reactions for research or production. Obtains scheme of processing from Chemist; sets apparatus and equipment; collects chemicals in required quantities; regulates feed of gaseous, liquid or solid materials into equipment. Checks progress of process by looking through peep holes, observing temperature readings, pressure gauges and other instruments and making simple chemical tests; regulates material feed, and heating and cooling devices and makes other adjustments necessary to ensure that processes are correctly carried out. Strains, filters and distils chemical substances to obtain required product in purified form. Implements safety measures in regards to operation of plant/machinery and in handling and processing materials such as acids, oils and maintains machinery. May be designated, according to type of material processed or plant in charge of, such as DISTILLING STILL ATTENDANT, FILTER PRESSMAN, etc.

ISCO 08 Unit Group Details:

Code 3133

Title Chemical Processing Plant Controllers

3133.0200 Furnace Operator (Chemical)

Furnace Operator (Chemical) controls continuous-process furnace and related equipment to decompose salt cake, forming hydrogen chloride: Starts salt conveyors or shovels salt cake into furnace; turns valves to fill furnace reaction pot with sulfuric acid from supply tank; and sets burners, dampers, and vents to fire furnace to specified temperature and effect liberation of

hydrogen chloride. Computes salt and acid requirements, using instrument readings and formulae and sets feed scales and timers for continuous operation or manually regulates feed and temperature controls to maintain production in conformity with plant standards. Removes scale from furnace walls and agitates salt cake to maintain efficient production, using scrapers and rake. Starts or regulates speed of salt-removal device to prepare furnace for new charge. Maintains log of shift production, gauge readings, and equipment failures.

ISCO 08 Unit Group Details:

Code 3133
Title Chemical Processing Plant Controllers

3133.0300
Boiling-Tub Operator (Chemical)

Boiling-Tub Operator (Chemical) tends tanks in which crude tetryl explosive or nitrocellulose is boiled and washed to remove acids and impurities: Admits batch of crude tetryl slurry to boiling tank. Starts tank agitators and turns valve to admit steam to tank jacket to boil slurry for specified time. Pumps off water after material has settled. Pumps fresh water through tank to wash tetryl and flush away impurities. When boiling nitrocellulose, admits acid to tub and boils contents for specified time, adds neutralizing agent, and repeats process until all nitrocellulose impurities are removed. May test acidity of solution, using hydrometer or titration test.

ISCO 08 Unit Group Details:

Code 3133
Title Chemical Processing Plant Controllers

3133.0400**Batch Still Operator, Chemical**

Batch-Still Operator, Chemical operates one or more stills in which batches of liquid chemicals, other than petroleum, are treated to separate them into their chemical constituent such as alcohol beverages, perfume or drugs or to refine those constituents. Manipulates feed valves to fill tank with liquid to desired levels; adjusts valves to control pressure in tank and rate of heating; regulates valves to control amount of condensed vapour returned to tank to enrich vapours driven from it; draws, from containers receiving condensed vapours, product samples for testing either on their own or in laboratory; determines by purity of samples, container to which product should be routed. Maintains record of raw materials drawn, quantity consumed to indicate production capacity of plant; enters in log book condition of plant and abnormalities noticed in distillation during shift for report to Chemist. May make adjustments to still auxiliaries such as condensers and pumps. May operate ordinary type of wood-fire distillation plant. May be designated according to type of chemicals used and industry attached to e.g. AMMONIA STILL OPERATOR; ALCOHOL STILL OPERATOR; BENZENE STILL OPERATOR.

ISCO 08 Unit Group Details:

Code 3133
Title Chemical Processing Plant Controllers

3133.0500**Continuous Still Operator, Chemical**

Continuous Still Operator, Chemical; Distillation Operator tends one or more

stills in which continuous feed of liquid chemical, other than petroleum is heated to separate into chemical constituents by regulating temperature, pressure, cooling valves etc. Adjusts feed valves to allow liquid to enter still at prescribed rate; adjusts controls to maintain temperature at various levels of still and to maintain prescribed pressure in still; regulates valves to control amount of condensed vapour returned to still to enrich vapours driven from it; draws, from containers receiving condensed vapours, product samples for testing either themselves or in the laboratory; determines by purity of samples to which container product should be routed; returns impure samples to main stock; maintains record of temperature, pressure and feed indicator readings. May make adjustments to still auxiliaries such as heat exchangers, absorbers, strippers, boilers and compressors. May specialize in type of chemical treated and be designated accordingly.

ISCO 08 Unit Group Details:

Code 3133

Title Chemical Processing Plant
Controllers

3133.0600

Bleaching Operator, Chemical

Bleaching Operator, Chemical; Bleacher Operator Chemical operates bleaching machine and treats chemical solution with bleaching reagents to improve their colour. Pumps liquids and chemical solutions to be bleached into tank; adds bleaching reagents and ingredients determined by formula by pumping or opening valves; starts agitator; observes and controls temperature and speed of agitator and regulates steam valves; continues bleaching for desired time till acceptable bleach product is obtained;

samples bleached product and sends it to control laboratory to test and check for chemical specifications. Filters products with the help of filter press and takes filtered products into storage tanks or to another department for further processing. Records weights of materials used and time required for bleaching. Maintains, oils, adjusts and makes minor repairs to equipment, implements safety measures in regard to operation of plant/machinery and in handling and processing materials.

ISCO 08 Unit Group Details:

Code 3133

Title Chemical Processing Plant
Controllers

3133.0700

Chemical Process Operator (Radio Active Materials)

Chemical Process Operator (Radio-Active Materials) controls laboratory equipment to prepare radioisotopes and other radioactive materials for use as tracers in biological, biochemical, and physiological and industrial research. Places specified amounts of chemicals to be irradiated into container, and secure vacuum pump head to outlet valve on container to replace air with inert gas. Drives pickup or forklift truck to transport container to nuclear reactor for irradiation and from reactor to processing area. Lifts container of irradiated material from truck using hoist and positions container over opening in concrete and lead cell. Moves remote control lever to open container and dump radioactive contents into glass tube in chamber of protective cell. Opens pneumatic valves or uses slave manipulators to add specified types and quantities of liquid reagents to glass vessel, dissolve and transfers radioactive samples into ion exchange tube, washes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

radioisotopes from side of ion exchange tube into collection vessel and transfers sample of glass flask, observing chemical reaction through periscope. Drains liquid into glass tube and performs standard chemical analysis involving titration and filtration, to ensure that radioisotopes conform to specifications. Places tube in metal container and crimps top to close container. Places container in carbon, encloses descriptive literature, and seals carbon. Compiles records including dates, production and related information. Decontaminates glassware and other equipment during shut down using cloth and soapy water.

ISCO 08 Unit Group Details:

Code 3133
Title Chemical Processing Plant Controllers

3133.0800

Hot-Cell Technician

Hot-Cell Technician operates remote-controlled equipment in hot cell to conduct metallurgical and chemical tests on radioactive materials: Controls slave manipulators from outside cell to remove metal or chemical materials from shielded containers inside hot cell and places on bench or equipment work station. Tests chemical or metallurgical properties of materials according to standardised procedures, and observes reaction through cell window. Sets up and operates machines to cut, lap, and polish test pieces, following blueprints, x-ray negatives, and sketches. Tests physical properties, using equipment, such as tensile tester, hardness tester, metallographic unit, micrometre, and gauges. Immerses test sample in chemical compound to prepare for testing. Places irradiated nuclear fuel materials in

environmental chamber to test reaction to temperature changes. Records results of tests for further analysis by engineers, scientists, or customers. Places specimen in shielded container for removal from cell, using manipulators. Participates in cleaning and decontamination of cell during maintenance shutdown. May devise adapters and fixtures for use in hot cell operations.

ISCO 08 Unit Group Details:

Code 3133
Title Chemical Processing Plant Controllers

3133.9900

Chemical Processing Plant Controllers, Other

Chemical Processing Plant Controllers, Other include plant controllers who operate and monitor chemical plants and adjust and maintain, processing units and equipment which distil, filter, separate, heat or refine chemicals not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3133
Title Chemical Processing Plant Controllers

Family 3134

Petroleum and Natural Gas Refining Plant Operators

Petroleum and Natural Gas Refining Plant Operators operate and monitor plants and adjust and maintain processing units and equipment which refine, distil and treat petroleum, petroleum-based products and by-products, or natural gas.

3134.0100

Continuous Still Operator, Petroleum

Continuous Still Operator, Petroleum; Stillman, Petroleum operates one or more continuous stills for distilling or refining crude oil to obtain fuel gas, gasoline, kerosene, diesel oil, lubricating oil, wax, bitumen, etc. Reads processing schedules, operating logs, test results of oil samples, and laboratory recommendations to determine changes in equipment controls required to produce specified quantity and quality of product; moves and sets controls, such as knobs, valves, switches, levers, and index arms on control panels to adjust, maintain, and co-ordinate process variables, such as flows, temperatures, pressures, vacuum, time, catalyst, and chemicals, by automatic regulation and remote control of processing units, such as heaters furnaces, compressors, exchangers, recharges, absorbers. Moves controls to regulate valves, pumps, compressors, and auxiliary equipment to direct flow of product, reads temperature and pressure gauges and flow meters, records readings, and compiles operating records; tests products for specific gravity and observes their colour to determine whether processing is being carried out properly; makes minor adjustments to equipment; shuts down still for cleaning and opens it up again; supervises workers who assist in operation of still. May fire oil or gas burning furnace through which oil is run to heat it to processing temperature. May specialize in a particular type of still, kind of oil processed, and be designated according to process involved or plant operated as ABSORPTION PLANT OPERATOR; PURIFICATION OPERATOR; STILLMAN; CRACKING UNIT; STILLMAN, POLYMERIZATION, etc.

ISCO 08 Unit Group Details:

Code 3134

Title Petroleum and Natural Gas Refining Plant Operators

3134.0200

Still Man Gas Plant/Gas Plant Operator (Petrol Refining)

Still Man, Gas Plant; Desulphurizer Operator; Gas Plant Operator (Petrol Refining) tends operation of unit in which pressure distillate and non-condensable gases are treated to extract those gases which are used as fuel. Observes various temperature, pressure and flow gauges of unit to ensure that unit is functioning properly and records readings. Adjusts valves to regulate height of liquid level in dephlegmator so that maximum separation of vapours from liquid will be obtained and vapours will be prevented from flowing back into unit and to regulate flow of gases through unit. Operates and controls speed of pumps to regulate flow of liquids through unit. Controls temperature and pressure of unit by setting automatic regulator at points desired. Winds and changes charts on recording meters. Shuts down unit and cleans it out with steam and water, exercising caution to prevent explosion. May oil and grease pumps.

ISCO 08 Unit Group Details:

Code 3134

Title Petroleum and Natural Gas Refining Plant Operators

3134.0300

Pump Man (Petroleum Refining)

Pump man (Petroleum Refining) controls pumps and manifold systems to circulate

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

crude semi compressed and finished petroleum products, water and chemical solutions through processing and storage departments of refinery according to schedules or instructions and plans movement of product through lines of processing and storage unit, utilizing knowledge of interconnections and capacities of pipelines, valve manifolds, pumps and tanks. Synchronizes activities with other pump houses to assure continuous flow of products and minimum contamination between products. Starts battery of pumps, observes pressure and flow meter and turns valve to regulate pumping speeds according to schedules. Turns hand wheels to open line valves to direct flow of product. Signals by telephone to operate pumps in designed units to open and closed pipeline and tank valves and to gauge, sample and determine temperature of tank contents. Records operating data, such as products and quantities pumped, stocks used, gauging results and operating time. May blend oil and gasoline. May repair pumps, lines and auxiliary equipment.

ISCO 08 Unit Group Details:

Code 3134
Title Petroleum and Natural Gas Refining Plant Operators

3134.0400

Control Man (Petroleum Refining)

Control Man (Petroleum Refining) operates control panel to regulate temperature, pressure, rate of flow, and tank level in petroleum refining, processing and treating units and petrochemical units, according to process schedules. Observes instruments and meters to verify specified conditions and record readings. Moves and adjusts dials, switches, valves and levers on control

panel to regulate and co-ordinate process variables, such as flows, temperatures, pressures, vacuum, time catalyst and chemicals as specified. Reports malfunctioning equipment to Still Man. Records results of laboratory analysis. May test products for chemical characteristics and colour, or send them to laboratory for analysis. May change recording charts and ink pens. May operate auxiliary equipment to assist in distilling or treating operations. May be designated according to type of process or unit in which employed such as CONTROL MAN, CRACKING UNIT; CONTROL MAN, CRUDE UNIT; CONTROL MAN, POLYMERISATION UNIT; SOLVENT 'TREATING' PLANT CONTROL MAN etc.

ISCO 08 Unit Group Details:

Code 3134
Title Petroleum and Natural Gas Refining Plant Operators

3134.0500

Blender (Petroleum Refining)

Blender (Petroleum Refining) controls equipment to blend straight run of natural gasoline with chemicals, tetra-ethyl leads, and light distillates of crude oil to produce commercial fuel, according to formula. Reads blending schedules specifying components and quantities to be blended. Turns, controls to open valves and starts pumps or directs Pump Man to transfer gasoline to blending tanks. Completes amount of addition or sets weighing machine that automatically weighs quantities of additives in ratio to quantity of gasoline. Turns hand wheel to open valves to spray jets to admit and circulate specified quantities of gasoline, additives and chemicals in mixing tanks. Move controls of pumps, agitators and mixtures to blend mixture mechanically or with air

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

agitation. Observes temperature gauges and turns valves to regulate and maintain specified temperature in tanks. Draws sample of mixture for laboratory analysis. Repeats blending process as required by laboratory recommendations or starts pump to draw off blended gasoline to storage tanks or leading racks. Opens valves to draw off chemical and lead residue. Records quantity blended and materials used. Lubricates, adjusts, and repairs pumps, agitators, and mixers. May test products. May operate control panel utilizing electronic computer and controls to blend products in pipelines. May be designated according to type of additive used as ETHYL BLENDER.

ISCO 08 Unit Group Details:

Code 3134
Title Petroleum and Natural Gas Refining Plant Operators

3134.0600

Paraffin Plant Operator (Petrol Refining)

Paraffin Plant Operator (Petrol Refining) operates filter presses to separate oil of paraffin distillate from paraffin wax. Installs filter plates using hand tools, and turns hand wheel to adjust hydraulic ram pressure. Turns valves to regulate flow of chilled distillate in to filter press. Starts machine to activate hydraulic rams to squeeze oil from distillate, as wax solidifies. Observes oil pressed from filter plates and adjust ram pressure to extracts maximum amount of oil from wax. Scraps accumulated wax from filter plate in to spiral conveyer that carries it to melting pan. Turns valve to regulate flow of steam in to melting pan to heat wax.. Start pumps to return salvaged distillate from tank to filter press for re-processing. May be designated according to phase of

processing as LEAK MAN, PARAFFIN PLANT; PRESSMAN, PARAFFIN PLANT.

ISCO 08 Unit Group Details:

Code 3134
Title Petroleum and Natural Gas Refining Plant Operators

3134.0700

Pump Station Operator

Pump-Station Operator; operates electric, diesel, gas, or automated pumping equipment to pump and route petroleum products through pipelines at main-line or terminal stations according to instructions and destination: Turns valves and starts engines to pump oil through station. Reads flow and pressure meters, and turns valves to vary pumping rate and line pressure, according to specifications. Turns hand wheel to open or close pipeline valves to direct flow of oil to storage tanks according to grade; to direct flow of oil through station and along pipeline, according to destination; or to switch oil to alternative pipelines to prevent contamination between grades. Inspects pumping equipment to detect malfunctioning and leaks. Lubricates machinery, and repairs and adjusts pumps and equipment, using hand tools. Records pressures, temperature, and flow rates, and maintains records of oil stock and oil receipts. May pump natural gas or natural gas liquid products. May gauge and test oil. May use radiotelephone equipment.

ISCO 08 Unit Group Details:

Code 3134
Title Petroleum and Natural Gas Refining Plant Operators

3134.0800

Treating-Plant Operator

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Treating-Plant Operator controls continuous-treating or batch-treating equipment to process petroleum products, such as petroleum, kerosene, and lubricating oils, with chemicals, solvents, steam, clay, and hydrogen to remove impurities and to improve colour, odour, and stability, according to specifications: Moves and sets levers, switches, dials, and hand wheels to admit products and treating agents to processing units in specified ratio; to direct flow of products through treating stages, such as mixing, precipitating, and neutralising; and to regulate temperatures, pressures, and circulation rates of treating equipment. Observes temperature gauges, pressure gauges, and flowmeters; records readings; and compiles operating records. Patrols unit to detect malfunctions and leaks. Opens bleeder valves to sample products and tests them for chemical characteristics, specific gravity, and colour, or sends sample to laboratory for analysis. Reprocesses products or pumps them to storage tanks, according to test results and laboratory recommendations. Opens valves to drain sludge from units. May repair and lubricate equipment. May treat products, using hydrogen-catalytic process.

ISCO 08 Unit Group Details:

Code 3134
Title Petroleum and Natural Gas Refining Plant Operators

3134.9900

Petroleum Refining Workers, Other

Petroleum Refining Workers, Other includes all other petroleum refining workers engaged in refining petroleum

and their products, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3134
Title Petroleum and Natural Gas Refining Plant Operators

Family 3135

Metal Production Process Controllers

Metal production process controllers operate and monitor multi-function process control machinery and equipment to control the processing of metal converting and refining furnaces, metal-rolling mills, metal heat-treating, or metal-extrusion plant.

3135.0500

Mixer Man

Mixer Man receives blast furnace molten metal from crane operated ladles into mixer furnace and transfers same to convertor, at correct temperature, as and when required. Adjusts mouth of mixer furnace by mechanical device and directs Crane Driver operating tilting ladle to pour molten metal into mixer furnace. Adjusts coke oven gas burners to maintain correct temperature of received molten metal. Tilts mixer furnace by electrical device for pouring molten metal into empty ladles for transferring it into Bessemer (duplex) convertor. Keeps account of metal received and delivered. May undertake electrical and mechanical running repairs.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.0600

Convertor Blower/Convertor Blower Technician

Convertor Blower; Blower Man; Steel Blower operates Bessemer convertor for obtaining required carbon content in molten iron for manufacture of steel by blowing. Tilts convertor by electrical device to receive molten metal from ladles (coming from mixer furnace). Blows air and steam into convertor at required pressure by operating electric switches. Brings convertor to vertical position and continues blowing. Judges metal condition from flames and sparks shooting out of convertor. Stops blowing when satisfied that molten metal is blown for further processing into steel. Tilts convertor to pour metal into another ladle for next operation. May watch signals from furnace and power house and take necessary action. May also maintain log book for recording serial number of blow, time, bottom number, vessel number blows on bottom etc.

ISCO 08 Unit Group Details:

Code 3135

Title Metal Production Process Controllers

3135.0700

Convertor Man/Convertor Blower Technician

Converter Man transfers molten metal from mixed furnace ladles to Bessemer converter with help of crane for blowing molten metal. Guides Converter Blower and Crane Driver for tilting converter and ladle to required angle for pouring molten metal from ladle in to converter and for transferring blown metal into another ladle. Inspects bottom and tuyeres (air

passages) after each blowing. Closes defective tuyeres by steel plate, firebricks and clay, if necessary. Directs all running repairs of converter. May also supervise changing of bottom and shoulder of converter.

ISCO 08 Unit Group Details:

Code 3135

Title Metal Production Process Controllers

3135.0900

Furnace Operator (Nonferrous Metal)

Furnace Operator (Nonferrous Metal) operates furnace to heat aluminium slabs and fabricated forms to specified temperature for rolling or processing: Sets furnace controls to regulate temperatures and heating time. Starts conveyors and opens furnace doors to admit slabs, plate, sheet, and coil, or signals Overhead Crane Operator to uncover soaking pits and lower ingots into them. Observes pyrometer and adjusts rheostat controls to maintain temperature between specified limits. Measures temperature of product to determine necessity for adjusting furnace temperature or timing cycle, using thermal instruments and charts. Removes material from furnace, using crane, or signals Overhead Crane Operator to transfer it to next station. Records time and production data.

ISCO 08 Unit Group Details:

Code 3135

Title Metal Production Process Controllers

3135.1100

Furnace Operator, Open Hearth

Furnace Operator, Open Hearth; Furnace Operator First Hand, Open Hearth (Steel Manufacture) operates open hearth furnace for making steel from blown metal (iron). Charges furnace with scrap, blown and molten metal received from convertor and blast furnace, chemicals etc., according to type of steel required. Controls fuel intake and flow of air in furnace to suit furnace condition. Takes care not to damage refractory work of furnace. Gets furnace ready for tapping and directs Furnace Operator Second Hand to open tapping hole of furnace closed for ascertaining suitability of further operation. May spray furnace sides with dolomite for maintaining proper furnace condition.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.1200

Furnace Operator, Second Hand, Open Hearth

Furnace Operator, Second Hand, Open Hearth (Steel Manufacturing) assists Furnace Operator, First Hand taps molten steel from furnace and adds, chemicals, oxides, etc. Keeps oxide and fluxes ready for charging into furnace. Maintains spout for flow of molten steel in proper condition. Leads gang of Helpers and Khalasis on receipt of instructions from Furnace Operator First Hand to open tapping hole of furnace by compressed air gun, oxygen cylinder with pipes or other devices. Ensures that molten metal flows smoothly into ladle. Adds various chemicals, oxides and fluxes in ladle to obtain correct specification of steel. Closes tapping hole by dolomite, coke mixtures, etc. Repairs, maintains and

dresses runner (channel for flow of molten steel) with fire clay bricks, loan, etc. during tapping intervals. May assist Furnace Operator First Hand in changing furnace and in spraying dolomite on furnace banks (sides). May be designated as FURNACE KEEPER or TAPPER, if employed in blast furnace.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.1300

Furnace Operator (Smelting and Refining)

Furnace Operator (Smelting & Refining) operates furnace to remove moisture, arsenic, or sulphur from ore: Charges top hearth of roaster with ore, regulating rate of charge by means of chute door. Determines speed with which roaster is being charged by weighing sample of charge ore obtained over measured interval of time. Starts rabbles (automatic rakes) that scrape hearth beds continually and move ore from one hearth to next lower one. Regulates draft and temperature of roaster by adjusting dampers and gas pressure. Replaces rabble arms by detaching arm from shaft with bar and removing it with hoist. Replaces defective rabble teeth. Directs workers in removing incrustations from hearth beds. Removes samples of roasted ore for laboratory analysis. May clean arms and rabbles with scrapers and iron bars. May determine oxide content of dried ore by titrating specified amount of flakes and calculating percentage. May replace defective parts and clean equipment, thermal instruments and charts. Removes material from furnace, using crane, or signals OVERHEAD CRANE

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

OPERATOR (any industry) to transfer it to next station. Records time and production data.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.1401

Shift In Charge Furnace Ferro Alloys

Shift In Charge Furnace Ferro Alloys takes responsibility of a particular shift for the entire operation of the furnace, starting from raw material feed until the final product is tapped and transferred with an assurance of quality product.

Qualification Pack Details:

QP NOS Reference	ISC/Q1104
QP NOS Name	Shift In Charge Furnace Ferro Alloys
NSQF Level	5

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.1700

Roller, Merchant Mill/Mill Operator

Roller, Merchant Mill; Roller, Billet Mill sets, rolls, checks, directs and co-ordinates operations of rolling mill. Checks general condition of mill. Directs and ensures proper supply of billets to re-heating furnace and from furnace to mill for rolling. Sets rolls, checks guides, adjusts controls, stands and functional parts of mill. Rolls trial bar or plate and makes necessary adjustments. Continues rolling and makes adjustments according to

defects revealed in samples taken from time to time. Co-ordinates work of mill crew such as Guide Setter, Tongsman, Labourers, and ensures smooth running of mill. Keeps mill tackles, rolls, men, etc., ready for mill changing (rolling sizes). May also conduct minor running repairs.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.1800

Roller, Sheet Mill/Mill Operator

Roller Sheet Mill; Rough Roller; Eight Roller; Finishing Roller; Four Roller rolls pack (metal plates or sheets) between mechanically or electrically driven rolls for making metal sheets of specific sizes. Sets roll pressure as per direction. Holds hot metal plate or sheet with tongs, pushes them into rolls, controls roll temperature by opening steam and water on them and rolls plate or sheet in between rolls for required number of times with gradually increased pressure by screwing device. Ensures correct rolling both for finish and sizes. May change position with other Rollers, Sheet Mill. May be designated as COLD ROLLER if engaged in cold rolling of annealed sheets for tinning, sizing, forming, etc.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.1900

Operator, Hot Rolling Mill (Non-Ferrous Metal)/Mill Operator

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Operator Hot Rolling Mill (Non-Ferrous Metal) controls and operates hot mill for sizing down metal slabs to required specifications. Judges temperature of slabs before starting rolling. Switches on screw 'down' Motor and adjusts roll gap according to material and thickness of slab with help of gap indicating dial gauge. Switches on pumps for supply of coolant to slabs or sheets under rolls. Watches light signals and operate, lifting and tilting tables by electric switches. Repeats process of narrowing down roll gap until required thickness is obtained. Keeps account of slabs rolled.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.2000

Roller, Hot Rolling Mill (Non-Ferrous Metal)/Mill Operator

Roller, Hot Rolling Mill (Non-Ferrous Metal) guides and controls ingoing and returning hot slabs or sheets with help of metal pushers (mild steel hammer like tool with long handle). Receives hot slabs one at a time from pre-heating furnace. Sets slab square on conveyor table (metal table with rollers) and signals to Operator Hot Rolling Mill. Lubricates slabs with oil by oil can and mop. Travels along table with slab and pushes it square in to rolls by metal pushers. Checks and stops returning slab or sheet by metal pushers. Repeats process till required size is attained. May reject material if deformed during rolling.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.2001

Fluid Management Operator Rolling Mills

Fluid Management Operator Rolling Mills prepares supply collection, evaluation and operation of all fluids connected with rolling operation in steel plant. It involves ensuring the right quantity and quality of fluid, its operation, inventory management, waste fluid disposal and the basic maintenance activities associated with maintaining the system.

Qualification Pack Details:

QP NOS Reference	ISC/Q0603
QP NOS Name	Fluid
Management Operator Rolling Mills	
NSQF Level	4

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.2002

Process Operator Rolling Mills

Process Operator Rolling Mills keeps different process lines functional by ensuring continuity of process. It also involves providing the actual commands for different operations as needed and monitor the operations for any deviations. It includes inspecting the material between processes to ensure alignment to specifications.

Qualification Pack Details:

QP NOS Reference	ISC/Q0601
QP NOS Name	Process
Operator Rolling Mills	
NSQF Level	5

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.2003

Coil Packaging Machine Operator Rolling Mills

Coil Packaging Machine Operator Rolling Mills operates the coil master (coil packaging machine) for packaging the finished coils (CR, Galvanised, Tinned, Colour Coated etc.) strapping operation and waggon unitisation in safe and secure manner. It includes bundling of the coil after mill, protecting the coil from dust, humidity, rain and handling damage by applying protective films and sheets in a designed sequence. Weighing and labelling the packaged coil according to specifications and finally ensuring readiness of coils for dispatch.

Qualification Pack Details:

QP NOS Reference	ISC/Q0602
QP NOS Name	Coil
Packaging Machine Operator Rolling Mills	
NSQF Level	3

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.2300

Operator, Strip Mill (Non Ferrous Metal)

Operator, Strip Mill (Non-Ferrous Metal); Roller, Strip Mill; Roller, Strip Mill First Hand re-rolls strips to required thickness, coils them by machine and co-ordinates various functions of strip mill. Sets roll gap by electrical controls, lubricate rolls and

adjust friction clutch to draw strip in to rolls. Directs Roller Second Hand, Strip Mill in his work. Checks thickness of rolled strips from time to time by micrometre or standard wire gauge and makes adjustments if necessary. Maintains records of rolled strip.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.2500

Seamless Pipe and Tube Roller

Seamless Pipe and Tube Roller operates rolls to form seamless pipe and tubes from billets which have been pierced longitudinally. Examines drawings and specifications. Selects and installs rolls which form specified outside diameter of tubing. Selects and screws to a power driven rod a plug that rotates inside the billet and forces it to expand to the proper inside diameter. runs billet through successive sets of rolls until dimensions of tubing meet specification. Examines and measures tubing for defect and for conformity to specifications.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.2600

Furnace Man, Reverberatory, Pulverised Coal Fired

Furnace Man Reverberate, Pulverized Coal Fired operates pulverized coal fired reverberatory furnace for melting iron or steel for heavy castings. Arranges for setting of furnace. Controls blast and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

temperature by means of valves and blowers. Supervises and controls charging of furnace by watching flame and atmospheric condition in side chamber. Records reading of various meters and changes furnace condition by controlling feeding of pulverized coal and blast. Draws out samples of metals and slag at intervals and gets them analysed. Refines metal by adding Ferro-alloys to melting metals. Supervises furnace repairs. May do chemical analysis of samples.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.3001

Heat Treatment Shop Supervisor

This role is responsible for supervising the various heat treatment activities through application of heat like Carburizing, Tempering, Nitriding, Induction Hardening and Quenching, and maintaining process parameters and conducting quality checks on output product. Deploying manpower as per requirement, guiding operators and technicians to complete the assigned task, maintaining a safe and healthy working environment on the shop floor and maintaining records related to production, rejections, material movement and manpower productivity for a line/shift.

Qualification Pack Details:

QP NOS Reference	ASC/Q3902
QP NOS Name	Heat
Treatment Shop Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code 3135

Title Metal Production Process Controllers

3135.3100

Centrifugal Casting Machine Operator

Centrifugal Casting Machine Operator operates centrifugal casting machine to cast tubular metal products such as brake drums, pipes, artillery barrels etc. selects required types of mould, grinds off and cleans rough spot from inside, using specially devised grinding attachment and brush, and fills inside pits with refractory material. Sets mould on machine and fastens cover on ends of mould. Mounts pouring box to serve as funnel for pouring molten metal into mould. Pre heats mould with torch, if necessary. Starts machine rotating at specified speed and sprays insulation on inside surface of rotating mould. Guides crane man in positioning portable furnace, containing melt for pouring and manipulates electric controls to fill furnace and pour melt in to pouring box. Observes and records prescribed instruments readings and allows mould to spin for required time to solidify metal against mould walls. Unfastens mould cover and removes casting using hydraulic ram or other devices as necessary. May operate machine from control board and be designated as CASTING MACHINE CONTROL BOARD OPERATOR. May pour molten metal in to mould with ladle.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.3900

Control Man, Billet/Process Controller

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Control Man, Billet; Signal Control Man, Billet controls pushing of billet (metal bars) one by one from furnace and guides it to pinching rolls (Device to catch billet) for passing it through first pass (mechanical device for reducing thickness). Watches proper heating of billets in furnace by means of thermo-electrical meters and signals (by light or bell) to Hot Billet Pusher and Furnace Hooker to push billet to pinching roll. Watches rear end of running bar to feed next billet. Draws attention of Pre-heating Furnace Operator in case of improper heating of billets.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

3135.9900

Metal Production Process Controllers, Other

Ore and Metal Furnace Operators, Other include workers who operate and monitor ore-smelting, metal-converting and refining furnaces not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3135
Title Metal Production Process Controllers

Family 3139

Process Control Technicians, Not Elsewhere Classified

This family covers Process Control Technicians not classified elsewhere. For instance, the group includes those who operate multiple process control

equipment in manufacturing assembly lines and paper an

3139.0100

Digester Operator, Paper Pulp

Digester Operator, Paper Pulp; Rag Boiler Operator, Paper Pulp operates boiler (cooker) to convert raw materials into paper pulp. Supervises charging of cooker with ingredients such as wood chips, rags, straw and waste paper shreds. Directs adding of chemicals and admission of steam to raise temperature and pressure. Observes gauges and makes adjustments to maintain desired operating conditions. Tests samples by titration or colour tests to determine stage of cooking. When the process completes, drains liquid from digester and instructs others in removal of cooked pulp. May be designated according to materials processed or chemicals used.

ISCO 08 Unit Group Details:

Code 3139
Title Process Control Technicians Not Elsewhere Classified

3139.0200

Beater Man, Paper Pulp

Beater Man, Paper Pulp; Beater Operator, Paper Pulp operates machine that mixes, beats and hydrates pulp and other ingredients used in making paper. Supervises charging of machine with pulp, fillers, size, dyes, alum and other chemicals. Sets and adjusts beater roller for desired degree of hydration. Examines the material for consistency and size of fibres while it is beaten, and sends samples to laboratory for testing. Transfers completed batch to storage tank and starts agitator to maintain

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

consistency. May mix and cook colouring matter for dyeing mixture.

ISCO 08 Unit Group Details:

Code 3139

Title Process Control Technicians Not Elsewhere Classified

paper for defects and marks defective portions for removal at reel. Sets up machinery and directs workers in slitting and rewinding paper. May operate sizing tub when surface sizing is desired and may spray paper with steam, water, or dyes to obtain specified finish.

3139.0300

Machine Man, Paper, Wet End

Machine Man Paper, Wet End operates section of machine in which wet pulp is fed on an endless wire-mesh belt and is formed into paper. Starts flow of material from storage chest through rotary screens to machine; adds water as necessary to make the material thin; removes dirt and other foreign matters from screens and regulates flow of stuff to obtain paper of desired weight. Sets machine controls for width, thickness and moisture content of paper; threads formed paper between press rolls. Supervises machine crew, drying, sizing, calendaring, winding and cutting paper. May weigh samples of paper and install Dandy Rollers to impress water mark on paper.

ISCO 08 Unit Group Details:

Code 3139

Title Process Control Technicians Not Elsewhere Classified

ISCO 08 Unit Group Details:

Code 3139

Title Process Control Technicians Not Elsewhere Classified

3139.0400

Machine Man, Paper, Dry End

Machine Man Paper, Dry End; Back Tender, Paper operates section of paper-making machine in which paper is dried, calendered, wound on reels. Threads paper through drier and calender rollers; adjusts controls to regulate tension of paper, temperature of drier rollers and pressure of calender rollers. Examines

Calender Man, Paper operates and adjusts calendering machine equipped with heated or chilled rollers to impart suitable gloss and finish to surface of paper. Positions roll of paper on reel stand of machine; threads paper between machine rolls and wraps end around rewinder reel. Inserts padding between rollers and running paper to remove crease in paper. Adjusts controls to regulate speed and tension of paper, temperature and pressure of rollers. Examines paper and ensures it is free from dirt, slime spots, wrinkles and spots. Ensures correct compactness of winding, mends breaks in paper with glue or tissue or heated flat iron. Tests paper samples for finish and gloss with special instruments. May attend to other processes in paper making.

ISCO 08 Unit Group Details:

Code 3139

Title Process Control Technicians Not Elsewhere Classified

3139.1400

Robotic Machine Operator

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Robotic Machine Operator sets up and operates industrial robots to drill, countersink, and counter bore metallic and non-metallic work pieces used to manufacture aircraft parts or tooling, according to specifications and pre-programmed machine control instructions: Reads work order and specifications to determine prescribed setup and operation. Mounts and positions work piece on locating pins of holding fixture adjacent to a robot, manually or using hoist, and aligns and secures work piece on holding fixture, using template, bolts, hand tools, and power tools. Installs specified type and size of drill bits in end effectors and places end effectors in holding station adjacent to a robot. Loads cassette tape of machine instructions into machine controller or enters commands to retrieve pre-programmed instructions from the mainframe computer. Pushes a button or enters commands to activate a robot that automatically retrieves and secures designated end effectors on robot arm and positions arm for drilling. Operates robots to drill holes in test specimen and measures holes for conformance to specifications, using measuring instruments. Enters commands to start robot, observes robotic operation, and monitors screen of machine controller for malfunctions and error messages. Changes worn drill bits or adjusts machine according to error message instructions. Inspects finished work piece for conformance to specifications. Cleans parts, tools, and fixtures, using solvents and rags. May set up and operate robot to perform additional machine operations, such as sealing and fastener installation, to join component parts into complete assembly.

ISCO 08 Unit Group Details:

Code 3139
Title Process Control Technicians Not Elsewhere Classified

3139.1501

Auto Component Assembly Fitter

Auto Component Assembly Fitter is one who is skilled in operating machine tools for conducting assembly and fitment operations of vehicle components and aggregates as per the required assembly norms. The components assembled by the operators are finally assembled in 2wheelers, 3 wheelers, 4 wheelers and large commercial vehicles.

Qualification Pack Details:

QP NOS Reference	ASC/Q3701
QP NOS Name	Auto Component Assembly Fitter
NSQF Level	4

ISCO 08 Unit Group Details:

Code 3139
Title Process Control Technicians Not Elsewhere Classified

3139.2001

Assembly Supervisor

Assembly Supervisor is also called, 'Line Supervisor' or 'Shift In charge. The Assembly Supervisor is responsible for supervising Electronic and Mechanical Assembly Technicians and for ensuring that production deadlines are met. The individual at work co-ordinates with production planning team, stores, quality assurance and assembly team to implement production schedule, manage shifts and allocate work in order to meet deadlines and quality standards.

Qualification Pack Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Reference	ELE/Q6305
QP NOS Name	Assembly
Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3139
Title	Process Control Technicians Not Elsewhere Classified

3139.5001

Quality Control Inspector

Quality Control Inspector needs to be responsible for the quality inspection of the manufactured products in order to deliver high quality to customers

Qualification Pack Details:

QP NOS Reference	ASC/Q6301
QP NOS Name	Quality Control Inspector-Level 3
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3139
Title	Process Control Technicians Not Elsewhere Classified

3139.5002

Quality Controller

Quality Controller is responsible for proper monitoring, testing and inspecting all systems and processes at the dealership. The individual is able to ensure that quality standards specified for the various component/aggregate manufacturers of the OEM product or service provided by an organization are met.

Qualification Pack Details:

QP NOS Reference	ASC/Q1605
QP NOS Name	Quality Controller

NSQF Level	6
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ISCO 08 Unit Group Details:

Code	3139
Title	Process Control Technicians Not Elsewhere Classified

3139.9900

Industrial Robot Operators, Other

Industrial Robot Operators, Other include operators those who load and unload industrial robots and perform related tasks not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3139
Title	Process Control Technicians Not Elsewhere Classified

Group 314

Life Science Technicians and Related Associate Professionals

Life Science Technicians and Related Associate Professionals perform a variety of technical tasks to support life science professionals with their research, development, management, conservation and protection work, in areas such as biology, botany, zoology, biotechnology and biochemistry, and to agriculture, fisheries and forestry.

Occupations in this Group are classified into the following Families:

3141	Life Science Technicians (Excluding Medical)
3142	Agricultural Technicians
3143	Forestry Technicians

Family 3141

Life Science Technicians (Excluding Medical)

Life Science Technicians (except medical) provide technical support to life science professionals undertaking research, analysis and testing of living organisms, and development and application of products and processes resulting from research in areas such as natural resource management, environmental protection, plant and animal biology, microbiology, and cell and molecular biology.

3141.0100 Laboratory Assistant, Zoological

Laboratory Assistant, Zoological arranges microscope, dissecting trays, instruments, reagents etc. in zoological laboratory for conducting experiments by Zoologist to perform routine test for classification and analyses and preserves zoological specimens. Sets up in position required apparatus. Arranges standard solutions, reagents and other preservative solutions. Collects required specimens such as insects, frogs, fishes, birds, animals etc. administers or guides administration of chloroform to them and supplies dead, living or unconscious specimens to laboratory for research and practical experiments. Performs routine test by dissections, studying growth, nature physiological reactions etc. and records observations as necessary. Classifies and catalogues preserved specimens and arranges them in proper order in museum. Preserves specimens by properly mounting them in preservative media like formalin, alcohol etc. Dissects animals and birds and stuffs them properly to retain their natural colour, appearance etc. Accompanies students and Zoologists on excursions and assists them in collection and preservation and

zoological specimens. Checks animals room and ensures proper maintenance of animals meant for laboratory use. Keeps apparatus and instruments such as balances, paraffin baths, incubators microtones etc. in good condition. May prepare slides and cut sections for practical demonstration.

ISCO 08 Unit Group Details:

Code 3141

Title Life Science Technicians (Excluding Medical)

3141.0200 Laboratory Assistant, Botanical

Laboratory Assistant, Botanical sets up microscopes, dissecting tables, instruments reagents etc. in botanical laboratory. Conducts routine tests for classification and analyses and preserves botanical specimens. Sets up in position microscope, dissecting tables, apparatus etc. and prepares or arranges standard solution, piths, alcohol and reagents required for conducting experiments. Cuts and mounts section, dissects flowers, seeds, etc. as desired Botanist and conducts routine tests for classification of plants, cataloguing of specimens and studying their characteristics. Preserves herbarium and other specimens in special media. Accompanies students and Botanist on excursion and assists them in collection and preservation of botanical specimens. Keeps apparatus and instruments in good condition. May operate microtome (instrument for cutting very thin sections). May maintain stock register of specimens, instruments etc. of laboratory.

ISCO 08 Unit Group Details:

Code 3141

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Life Science Technicians (Excluding Medical)

3141.0300 Taxidermist

Taxidermist prepares, stuffs and mounts skins of animals and birds in lifelike form. Removes skin from carcass of animal or bird using special knives, scissors etc., taking care to preserve coat and skin and other outward features in their natural state. Applies preservative solutions to skin. Makes artificial structure or body frame using wires, wood, papier-Mache or other media to cover preserved skin over it using special adhesives. Fits artificial or real eyes, claws, teeth etc. to specimen. Mounts prepared specimen on suitable pedestal. May display stuffed specimen in natural surroundings. May articulate skeletal parts of birds and animals for preservation and scientific study. May paint faded portions of specimen with appropriate colours. May specialize in preparing stuffing and mounting of particular type of animals.

ISCO 08 Unit Group Details:

Code 3141

Title Life Science Technicians (Excluding Medical)

3141.9900 Life Science Technicians (Excluding Medical), Other

Life Science Technicians (Excluding Medical), Other include technicians who provide technical support to life science professionals undertaking research, analysis and testing of living organisms, and development and application of products and processes not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3141

Title Life Science Technicians (Excluding Medical)

Family 3142 Agricultural Technicians

Agricultural Technicians perform tests and experiments, and provide technical and scientific support to Agricultural Scientists, Farmers and Farm Managers.

3142.0101 Micro Irrigation Technician

Micro Irrigation Technician holds a very critical role in the installation and function of micro irrigation system that not only uses the existing natural resources efficiently but also benefits the farmers in terms of decreased cost of cultivation in the long run.

Qualification Pack Details:

QP NOS Reference AGR/Q0301

QP NOS Name Micro

Irrigation Technician

NSQF Level 4

ISCO 08 Unit Group Details:

Code 3142

Title Agricultural Technicians

3142.0201 Bare Foot Technician (BFT)

Bare Foot Technician (BFT) is also known as the Bare Foot Engineer is needed at village level in rural India to provide technical support to the infrastructure activities and works taken up under MGNREGS, to improve the quality and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

durability of the assets to be created. The role involves working as a Junior Technical Assistant and perform tasks under the instruction and guidance of the Technical Assistant/Junior Engineer/Assistant Engineer. The individual is expected to carry out the functions of Technical Assistant/Overseer/Work Inspector in providing technical services at village level such as identification, setting and layout, supervise for ensuring the quality and specifications of works taken up under MGNREGS. The individual should ensure activity specific compliance to environment, health and safety aspects while executing the works.

Qualification Pack Details:

QP NOS Reference	AGR/Q7801
QP NOS Name	Bare Foot
Technician	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3142
Title	Agricultural Technicians

3142.9900

Agricultural Technicians, Others

Agricultural Technicians, Others include Agricultural Technicians who perform tests and experiments, and provide technical and scientific support to Agricultural Scientists, Farmers and Farm Managers not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3142
Title	Agricultural Technicians

Family 3143

Forestry Technicians

Forestry Technicians perform technical and supervisory functions in support of forestry research and forest management, harvesting, resource conservation and environmental protection.

Group 315

Ship and Aircraft Controllers, and Technicians

Ship and Aircraft Controllers and Technicians, command and navigate ships and aircraft, perform technical functions to ensure safe and efficient movement and operations, and develop electrical, electromechanical, and computerized air control systems.

Occupations in this Group are classified into the following Families:

3151 Ship's Engineers
3152 Ship's Deck Officers and Pilots
3153 Aircraft Pilots and Related Associate Professionals
3154 Air Traffic Controllers
3155 Air Traffic Safety Electronics Technicians

Family 3151

Ship's Engineers

Ships' Engineers control and participate in the operation, maintenance and repair of mechanical, electrical and electronic equipment and machinery on board ship, or perform related supporting functions on shore.

3151.0100

Chief Engineer, Ship

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Chief Engineer, Ship; Chief Engine Officer, Ship ensures safe and economic running of all engines, boilers, electrical, refrigerating and sanitary equipment deck machinery and steam connections abroad ship. Directs and controls work and conduct of engine room crew of vessel. Keeps log of performance of engines and equipment on voyage. Supervises repairs and overhauling of engines and accessories. Looks after fuelling of ship. Looks to proper storage and maintenance of all engine room stores. May attend to repair work in case of breakdown.

ISCO 08 Unit Group Details:

Code	3151
Title	Ship's Engineers

3151.0200

Second Engineer, Ship

Second Engineer, Ship; Second Engine Officer, Ship functions as second-in-command, to Chief Engineer and ensures general upkeep and cleanliness of machine on board ship. Distributes work to engine room crew. Checks and keeps rough ledgers relating to stores. Tests all machinery to ensure that they are in good order. Supervises personally setting of valves, pistons etc. of main engine under instructions from Chief Engineer. Keeps watch in engine room and stoke-hole during specified hours in mornings and evenings.

ISCO 08 Unit Group Details:

Code	3151
Title	Ship's Engineers

3151.0300

Third Engineer, Ship

Third Engineer Ship; Third Engine Officer, Ship keeps watch in engine room and stoke-hole during specified hours while at sea, alternates with Fourth Engineer Ship for day duties during specified hours while in port and performs other duties assigned by Second Engineer, Ship. Ensures proper adjustment of bearings of main engine and moving parts. May take charge of maintenance of all electrical fittings and stores in absence of electrician. May keep rough ledger of electrical stores and equipment.

ISCO 08 Unit Group Details:

Code	3151
Title	Ship's Engineers

3151.0400

Fourth Engineer, Ship

Fourth Engineer, Ship; Fourth Engine Officer, Ship assists Second Engineer, Ship in maintenance of main engine, pumps, boiler mountings and other auxiliary machinery on board and keeps watch in engine room and stoke-hole during specified hours in mornings and nights while ship is at sea. Carries out daily maintenance work and does day duty alternating with Third Engineer, Ship while ship is in port.

ISCO 08 Unit Group Details:

Code	3151
Title	Ship's Engineers

3151.0500

Fifth Engineer, Ship/Junior Engineer

Fifth Engineer, Ship; Junior Engineer, Ship looks after maintenance and overhaul of winches and other machinery under guidance of Second Engineer, Ship. Keeps

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

night watch on engine room and deck. Carries out day work while at sea assisting senior engineers.

ISCO 08 Unit Group Details:

Code	3151
Title	Ship's Engineers

Customs and Port Services such as, entering and clearing ship, submitting cargo manifesto to custom authorities, etc. Maintains discipline on vessel. Submits periodical reports to owner suggesting measures for increasing efficiency of service.

3151.9900

Ship and Aircraft Controllers and Technicians, Other

Ships Engineers, Other include all other ship's engineers engaged in maintenance of ship and deck machinery, ledgers, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3151
Title	Ship's Engineers

Family 3152

Ship's Deck Officers and Pilots

Ships' deck officers and pilots command and navigate ships and similar vessels, and perform related functions on shore.

3152.0100

Captain, Ship/Master

Captain, Ship; Master, Ship functions as head of ship ensuring safe navigation, exercises complete control over officers and crew on board and carries on ships business at ports of call. Directs navigation of vessel, assisted by other deck officers. Lays course of voyage for officers on watch follow. Manoeuvres vessel under adverse weather conditions and emergencies. Alters course at discretion. Maintains day-to-day log of events during voyage. Carries on ships business with

ISCO 08 Unit Group Details:

Code	3152
Title	Ship's Deck Officers and Pilots

3152.0200

Chief Officer, Ship

Chief Officer, Ship; First Mate, Ship functions as second-in-command to Captain, supervises activities of deck workers and loading, storage and discharge of cargo. Exercises control over deck crew, assigns duties to Serang and apprentices and maintain discipline. Plans and executes work related to loading, storage and unloading of cargo. Maintains cleanliness and upkeep of equipment. Keeps watch on bridge in mornings and evenings at sea during specified hours and assists Captain in navigation. Fixes ships position by star lights at dawn and dusk, and maintains Mates logbook, cargo books and store books. Imparts necessary training to indentured apprentices. May assume duties of Captain in case of emergency.

ISCO 08 Unit Group Details:

Code	3152
Title	Ship's Deck Officers and Pilots

3152.0300

Second Officer, Ship

Second Officer, Ship; Second Mate, Ship assists Captain, Ship in navigation and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Chief Officer, Ship in supervising loading and discharge of cargo. Performs night duty in port while important cargoes are being loaded and unloaded, takes turn with Third Officer on cargo while in port. Maintains all navigational equipment on board in good order. Winds chronometer daily, and starts and stops gyrocompass. Keeps watch on bridge during specified hours of day and night for ensuring safe navigation. Fixes position of ship at sea by taking morning, noon and afternoon readings with sextant and reports to Captain. Keeps watch on anchor, when ship anchored outside port. May look after sick on board in absence of Medical Officer.

ISCO 08 Unit Group Details:

Code 3152

Title Ship's Deck Officers and Pilots

3152.0400

Third Officer, Ship

Third Officer, Ship; Third Mate, Ship assists Captain, Ship and Chief Officer, Ship in navigation and maintenance of life boats, safety and signalling equipment on board and loading and discharge of cargo in port. Remains on bridge while ship enters or leaves port and passes orders of Captain or Pilot, Ship to engine room and relays messages to Chief Officer and Second Officer, Ship. Ensures that helm orders are correctly executed by the Seafarers. Maintains log book of all engine and helm orders and other silent features of manoeuvres. Assists Second Officer in fixing position of ship. Keeps watch on bridge during specified hours of day and night for ensuring safe navigation. Performs day and night duty in port alternating with Second Officer, Ship in supervising, loading and discharge of cargo.

ISCO 08 Unit Group Details:

Code 3152

Title Ship's Deck Officers and Pilots

3152.0500

Harbour Master

Harbour Master exercises administrative control of docks and wharves and controls movement of vessel in and out of port. Allocates duty to Pilot, Ship and controls floating crafts and marine staff of port. May pilot vessels to and from harbour if necessary

ISCO 08 Unit Group Details:

Code 3152

Title Ship's Deck Officers and Pilots

3152.0600

Pilot Ship/Bay Pilot/Harbour Pilot/Channel Pilot

Pilot, Ship directs movement of ship in and out of confined waters such as channels, rivers, harbours, etc. Boards vessel outside confined waters and assists Captain, Ship in navigating, manoeuvring vessel safely into port, assists Captain also in manoeuvring vessel when leaving port. May moor or unmoor ship in harbour.

ISCO 08 Unit Group Details:

Code 3152

Title Ship's Deck Officers and Pilots

3152.0900

Ferry Officer

Ferry Officer directs arrival of boats, steamers etc. at ferry crossings. Controls and co-ordinates work of staff employed at ferry station. Displays time schedules, instructions, changes in timings of ferry

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

service etc. prominently at ferry station. Prepares duty roster of boat crew and arranges substitutes for absentees. Ensures that service boats are provided with lifesaving equipment such as life belts, first aid kits, firefighting appliances etc. and are adequate. Attends to all passenger enquires. Checks periodically certificate issued on safety survey of seaworthiness of vessel. Attends to embarkation and disembarkation of passengers, weighment and charging of luggage etc. as necessary. Receives and issues signal messages to guide boat through water-way. Despatches relief boats and other assistance on receipt of S.O.S. from boat on course. Collects and remits to treasury levies from private boats for services rendered. Maintains prescribed statement of accounts and returns and forwards them to higher authority as required.

ISCO 08 Unit Group Details:

Code 3152

Title Ship's Deck Officers and Pilots

3152.9900

Ship's Deck Officers and Pilots,

Other

Ship's Deck Officers and Pilots, Other include all other Ships Deck Officers and Pilots engaged in seafaring, navigation, berthing, harbouring, etc. not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3152

Title Ship's Deck Officers and Pilots

Family 3153

Aircraft Pilots and Related Associate Professionals

Aircraft pilots and related associate professionals control the operation of mechanical, electrical and electronic equipment, in order to navigate aircraft for transporting passengers, mail and freight and perform related pre-flight and in-flight tasks.

3153.0100

Chief Pilot, Aircraft

Chief Pilot Aircraft; Aeroplane Pilot, Chief directs operation of flight department of airline. Conducts indoctrination training for new Pilots and refresher training for experienced Pilots. Reviews reports on pilot performance and forwards reports to airline control authority. Discusses operation and personal problems with subordinates to improve morale and efficiency. Studies technical manuals of Aeroplane and equipment manufactures and government regulations affecting flight operations to ensure that company training manuals adhere to legal requirements and are adopted to type of aircraft in use. Represents company in advisory capacity during contract negotiations with Pilots Union. Accompanies flights to observe performance of Pilots. Conducts training classes for flight personnel covering emergency procedures and use of survival equipment. Directs preparation of flight crew schedules and assignment of personnel. May interview and hire flight personnel. May pilot airplane on scheduled flights, for testing performance of aircrafts, drawing up new air-routes, conducting aerial surveys and on reconnoitring missions.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related
Associate Professionals

3153.0200

Check Pilot

Check Pilot, accompanies Aeroplane Captains on periodic flights to observe their ability and to evaluate their proficiency. Accompanies Pilots on periodic flights over established air routes to observe their proficiency in manoeuvring of aircrafts and notes compliance with and infringements of company or aviation regulations. Checks navigational and meteorological facilities available en route. Compiles report on findings, for management remedial action. May fly aircraft during emergency.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related Associate Professionals

3153.0300

Pilot, General

Pilot, General; Aeroplane Pilot, General flies aircraft to transport passengers mail or freight, or for other commercial purposes. Reviews flight papers to ascertain factors, such as load weight, fuel supply, weather conditions and flight route and schedule. Orders changes in fuel supply, load, route or schedule to ensure safety of flight. Reads gages to verify that oil, hydraulic fluid, fuel quantities and cabin pressure are at prescribed level prior to starting engines. Starts engines and taxies aeroplane to runway. Sets breaks and accelerates engines to verify operational readiness of components, such as super charges, carburettor-heaters and controls. Contacts control tower by radio to obtain take-off clearance and instructions.

Releases brakes and moves throttles and hand and foot controls to take-off and control aeroplane in flight. Pilots aeroplane to destination adhering to flight plan and regulations and procedures. Records information, such as time in flight, altitude flown and fuel consumed. May instruct students or pilots in operation of aircraft. May be designated as Transport Pilot according to aviation licence held Airline Pilot or Corporate Pilot according to commercial activity in which engaged or as Aeroplane Captain, if placed in command of aircraft and crew; and as Aeroplane First Officer or Co-Pilot, if engaged as second in command.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related Associate Professionals

3153.0400

Aircraft Pilot, Specialized

Pilot, Aircraft, flies aircraft for specialized purposes such as testing aircrafts, instructing trainees in flying, dropping supplies, making aerial surveys, spraying pesticides etc. Operates controls of aircraft on scheduled routes or chartered flights; observes gages, meters and other cockpit instruments to control aircraft and detect engine irregularities; uses navigational aids to direct course of aircraft in flight; trains Pilots in operation of particular types of aircraft such as jet aircrafts, single or multi-engine aircraft, helicopters etc. Demonstrates and explains methods of control and operation of aircraft to students-trainees, flies aircraft or helicopters at low altitude with slow speed over agricultural fields to spray or dust fields with fertilizers or pesticides; flies aircraft at high altitudes, over hills and dales to drop supplies and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

make aerial surveys and take aerial photographs. May be known as Instructor, Pilot or Instructor, Flying, if specially engaged in instructing students or Pilots in operation of aircraft.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related Associate Professionals

3153.0500

Pilot, Glider

Pilot Glider operates glider to glide and soar in air with help of rising air-currents (thermal currents). Takes position in glider and secures with a strap. Checks controls fitted in glider. Ensures that end of wire-rope stretched from wire-rope drum of stationary winch engine stationed at other end of field is fixed to glider and Signalman and Traffic Hand Gliding are ready at their posts. Directs Signalman to signal Winch-Engine Operator about readiness for take-off. Releases wire-rope from glider by manipulating release knob after glider is air-borne and gains maximum height through air-currents. Maintains flight for required time, lands glider at landing area by manoeuvring controls. May fly glider towed by power-driven airplane. May be designated as Glider-Pilot; Glider-Instructor, if employed in flying clubs to train members in gliding.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related Associate Professionals

3153.0600

Chief Navigator, Aircraft

Chief Navigator, Aircraft controls and supervises work of Check Navigator and advises management on feasibility of undertaking flights on new routes. Checks log-book maintained by Navigator. Examines reports compiled by Check Navigator on work performance and efficiency of Navigator. Studies working difficulties experienced by Navigators and suggests remedial measures. Maintains navigational charts and maps and advises management on condition of terrain when considering flights over new routes. Studies latest advances in navigational equipment etc. and makes recommendations regarding their purchase and installation. May check work of Check Navigator and Navigator by surprise visits.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related Associate Professionals

3153.0700

Check Navigator, Aircraft

Check Navigator, Aircraft observes periodically Navigator during flights and reports on his abilities and efficiency of various navigational aids used to higher authorities. Accompanies Navigator periodically in aircraft and observes his working. Checks accuracy of charts and time taken by him in plotting position of aircraft not equipped with automatic position indicator. Submits reports on Navigators ability and efficiency. May test Navigators ability to handle difficult situation in breakdowns, accidents, etc. by asking questions. May recommend Navigators promotion, demotion or further training to appropriate authorities.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 3153

Title Aircraft Pilots and Related
Associate Professionals

3153.0800

Navigator, Aircraft

Navigator, Aircraft advises Pilot, Aircraft on position of aircraft, weather conditions and deviation from course during flights, using radar charts and other navigational aids. Checks automatic position indicator, navigational instruments, radio direction-finding equipment, etc. before flight and ensures that they function properly. Establishes position of aircraft during flight using navigational instruments and radar charts. Plots position of aircraft on charts using navigational instruments and radio direction-finding equipment as necessary. Directs course of aircraft in accordance with flight plan. Informs Pilot about unforeseen weather conditions, such as storms and other atmospheric changes and suggests any necessary deviation from course of flight. Maintains logbook of flights undertaken. May act as Pilot in case of emergency.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related
Associate Professionals

3153.0900

Chief Flight Engineer

Chief Flight Engineer plans, co-ordinates, controls and supervises work of Check-Flight Engineer, Flight Engineer and ensures removal of defects or deficiencies in aircraft observed during flight and pointed out in flight reports. Studies flight reports and logs prepared by Checked-Flight Engineer and Flight Engineers regarding working of aircraft, fuel consumption, engine performance and its

malfunctions etc. amends logs when any technological change is made in aircraft, or when any statistical data is required to be collected. Maintains liaison with engineering department in technical matters affecting flight engineering. Recommends adequate standard operations in force to Director of Flying or planned operations. Represents operations department in technical conferences. Undertakes yearly flight checks of all flight engineers working under him. Conducts surveys of engineering and refuelling facilities on new routes to be opened. May assist in investigation of important events like crashes, break-down etc.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related
Associate Professionals

3153.1000

Check Flight Engineer

Check Flight Engineer checks work of Flight Engineer and ensures correct execution of his responsibilities with regard to pre-flight, in-flight and post-flight, and renders report to Chief Flight Engineer. Ensures that proper checking of fuel loading, oxygen, forms and manuals on board, engine parameter, pressurization and air-conditioning has been done by Flight Engineer before flight of aircrafts. Accompanies Flight Engineer, periodically, during flight and observes that he maintains constant watch on performance of aircraft, engine and components and keeps accurate hourly log of all instruments readings; ensures speedy and proper rectifications of all defects by engineering personnel during flight emergencies, renders report of his observations to Chief Flight Engineer after

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

flight and suggests improvements for efficient working of aircraft or Flight Engineer. May draw attention of training department to any short-comings noticed in Cadet Flight Engineer, may supervise work of ground crew at transit stops.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related Associate Professionals

3153.1100 Flight Engineer

Flight Engineer makes pre-flight, in-flight, and post-flight inspection, adjustments, and minor repairs to ensure safe and efficient operation of aircraft. Inspects aircraft prior to take-off for defects, such as fuel or oil leaks and malfunctions in electrical, hydraulic, or pressurization systems according to pre-flight checklist. Verifies passenger and cargo distribution and amount of fuel to ensure that weight and balance specifications are met. Monitors control panel to verify aircraft performance, and regulates engine speed according to instructions of Pilot, Aircraft. Makes in-flight repairs, such as replacing fuses, adjusting instruments, and freeing jammed flight control cables, using hand tools, or takes emergency measures to compensate for failure of equipment, such as autopilot wing heater, and electrical and hydraulic systems. Monitors fuel gauges and computes rate of fuel consumption and engine performance. Records malfunctions which were not corrected during flight, and reports needed repairs to ground maintenance personnel. May perform repairs upon completion of flight.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related Associate Professionals

3153.9900

Aircraft Pilots and Related Associate Professionals, Other

Aircraft Pilots and Related Associate Professionals, other include associate professionals who control the operation of mechanical, electrical and electronic equipment, in order to navigate aircraft for transporting passengers, mail and freight and perform related pre-flight and in-flight tasks not classified elsewhere.

ISCO 08 Unit Group Details:

Code 3153

Title Aircraft Pilots and Related Associate Professionals

Family 3154

Air Traffic Controllers

Air traffic Controllers direct aircraft movements in airspace and on the ground, using radio, radar and lighting systems, and provide information relevant to the operation of aircraft.

3154.0100

Air Traffic Controller Specialist

Air Traffic Control Specialist receives and transmits flight plans, meteorological, navigational and other information in air traffic control station to perform pre-flight and emergency service for Aeroplane Pilots and controls air traffic on and within vicinity of airport. Accepts flight plans from Pilots and reviews them for completeness. Routes plans for operating under instrument flight rules to station

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

near destination airport. Provides meteorological navigational and other information to Pilot during flight, using radio. Relays traffic control and other instructions regarding safety of aircraft to Pilots. Answers radio calls from arriving and departing aircraft and issues landing and take-off instructions and other information such as runway to use, liquid velocity and directions, visibility, etc. May keep written record of messages issued to and received from aircraft.

ISCO 08 Unit Group Details:

Code 3154
Title Air Traffic Controller

3154.0200

Traffic Controller, Air Service

Traffic Controller, Air Service; Air Traffic Controller directs take-off and landing of aircraft at airports by issuing radio instructions to flying crafts within his range. Directs take-off and landing of aircraft at airport by radio, lights and flags. Contacts flying aircraft to give warnings and instructions regarding landing and information about whether condition at airfield. Guides Pilots of aircrafts in distress. Arranges search and rescue operations of lost aircraft. Controls airport lights for taking off and landing of planes at night. Arranges for rectification of defect in lighting system and in other facilities to be corrected. Keeps record of all instructions issued, messages received, and landing and departure of aircraft. May operate radar for close watch and identifying aircraft on flight.

ISCO 08 Unit Group Details:

Code 3154
Title Air Traffic Controller

3154.9900

Air Traffic Controllers, Other

Air Traffic Controllers, other include associate professionals engaged in aircraft movements in airspace and on the ground, using radio, radar and lighting systems, and provide information relevant to the operation of aircraft not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3154
Title Air Traffic Controller

Family 3155

Air Traffic Safety Electronics Technicians

Air Traffic Safety Electronics Technicians perform technical tasks concerning the design, installation, management, operation, maintenance and repair of air traffic control and air navigation systems.

Sub Division 32

Health Associate Professionals

Health associate professionals perform technical and practical tasks to support diagnosis and treatment of illness, disease, injuries and impairments in humans and animals, and to support implementation of health care, treatment and referrals plans usually established by medical, veterinary, nursing and other health professionals

Tasks performed by workers in the sub-major group usually include: testing and operating medical imaging equipment and administering radiation therapy; performing clinical tests on specimens of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

bodily fluids and tissues; preparing medications and other pharmaceutical compounds under the guidance of pharmacists; designing, fitting, servicing and repairing medical and dental devices and appliances; providing nursing and personal care and midwifery support services; using herbal and other therapies based on theories, beliefs and experiences originating in specific cultures.

Occupations in this Sub Division are classified into the following Groups:

321	Medical and Pharmaceutical Technicians
322	Nursing and Midwifery Associate Professionals
323	Traditional and Complementary Medicine Associate Professionals
324	Veterinary Technicians and Assistants
325	Other Health Associate Professionals

Group 321 Medical and Pharmaceutical Technicians

Medical and Pharmaceutical Technicians perform technical tasks to assist in diagnosis and treatment of illness, disease, injuries and impairments.

Occupations in this Group are classified into the following Families:

3211	Medical Imaging and Therapeutic Equipment Technicians
3212	Medical and Pathology Laboratory Technicians
3213	Pharmaceutical Technicians and Assistants

3214 Medical and Dental Prosthetic Technicians

Family 3211 Medical Imaging and Therapeutic Equipment Technicians

Medical Imaging and Therapeutic Equipment Technicians test and operate radiographic, ultrasound and other medical imaging equipment to produce images of body structures for the diagnosis and treatment of injury, disease and other impairments. They may administer radiation treatments to patients under the supervision of a radiologist or other health professionals.

3211.0100 X-Ray Technician

X-Ray Technician; Radiographer; Radiological Assistant takes X-ray skiagraph (Photographs) for diagnosis of ailments or gives ray treatment by operating X-ray equipment and exposing patients to rays. Prepares or gets patients prepared by Nurse for ray exposure. Regulates duration and intensity of exposure by adjusting machines and exposing patients to rays as directed by the Radiologist. Positions patient on X-ray couch to ensure correct exposure of the part of body required to be X-rayed and for ray exposure taking care to protect the patient and themselves from harmful exposure to X-ray. Adjusts X-ray tube at proper distance and angle, by rotating the pivot etc. to ensure centring of tube on part of body to be X-rayed. Regulates controls of X-ray machine or therapy equipment, for duration intensity of exposure and exposes film or patient to rays as directed by Radiologist. Removes cassette with exposed film and hands over

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

to Dark Room Assistant where available for developing fixing, washing, Labelling (date and name of patient) etc. Mixes, develops, fixes etc. and processes X-ray films in accordance with techniques and instruction of Radiologist. Keeps records of raw and exposed films, spare parts and of patients X-rayed or treated. May mix developers and process film in accordance with prescribed techniques.

ISCO 08 Unit Group Details:

Code 3211
Title Medical Imaging and Therapeutic Equipment Technicians

3211.0101 Radiology Technician

Radiology Technician is also referred to as Radiologic technologists, Radiological Technologists and Technicians. Radiology Technicians perform diagnostic imaging examinations such as X-rays, CT and MRI scans under the guidance of a Radiologist. They are responsible for preparing patients and operating equipment for the test, besides keeping patient records and adjusting and maintaining equipment.

Qualification Pack Details:

QP NOS Reference HSS/Q0201
QP NOS Name Radiology
Technician
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3211
Title Medical Imaging and Therapeutic Equipment Technicians

3211.0200 Bio-Medical Equipment Technician

Biomedical Equipment Technician; Biomedical Engineering Technician repairs, calibrates, and maintains medical equipment and instrumentation used in health-care delivery field: Inspects and installs medical and related technical equipment in medical and research facilities for use by physicians, nurses, scientists, or engineers involved in researching, monitoring, diagnosing, and treating physical ailments or dysfunctions. Services various equipment and apparatus, such as patient monitors, electrocardiographs, blood-gas analysers, x-ray units, defibrillators, electrosurgical units, anaesthesia apparatus, pacemakers, blood-pressure transducers, spirometers, sterilisers, diathermy equipment, in-house television systems, patient-care computers, and other related technical paraphernalia. Repairs, calibrates, and maintains equipment, using hand tools, power tools, measuring devices, and knowledge of manufacturers' manuals, troubleshooting techniques, and preventive-maintenance schedules. Safety-tests medical equipment and health-care facility's structural environment to ensure patient and staff safety from electrical or mechanical hazards. Consults with medical or research staff to ascertain that equipment functions properly and safely, utilizing knowledge of electronics, medical terminology, human anatomy and physiology, chemistry, and physics.

ISCO 08 Unit Group Details:

Code 3211
Title Medical Imaging and Therapeutic Equipment Technicians

3211.0501 Medical Equipment Technician

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Medical Equipment Technician: in the Healthcare Industry is also known as a Biomedical Equipment Technician (BMET), Service Technician, Biomedical Electronics Technician, and Biomedical Engineering Technician (BMET). Medical Equipment Technicians install, maintain and repair patient care equipment. They perform inspection, installation, and preventative maintenance of general clinical equipment, including appropriate documentation for all service activities and training the hospital staff.

Qualification Pack Details:

QP NOS Reference	HSS/Q5601
QP NOS Name	Medical Equipment Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3211
Title	Medical Imaging and Therapeutic Equipment Technicians

3211.0801

Cardiac Care Technician

Cardiac Care Technician (CCT) is a health care specialist who supports cardiologist in diagnosing and treatment of ailments of the human heart. Cardiac Care Technician in the health Industry is also known as a Cardiographic Technicians or Cardiovascular Technicians. Individuals in this job assist in performing invasive and non-invasive diagnostic examinations and therapeutic interventions of the heart and/or blood vessels at the request or direction of a provider.

Qualification Pack Details:

QP NOS Reference	HSS/Q 0101
QP NOS Name	Cardiac Care Technician

NSQF Level	4
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ISCO 08 Unit Group Details:

Code	3211
Title	Medical Imaging and Therapeutic Equipment Technicians

3211.9900

Medical Imaging and Therapeutic Equipment Technicians, Other

Medical Equipment Operators, other includes those who are engaged in controlling technical equipment used to diagnose or treat illnesses and disorders not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3211
Title	Medical Imaging and Therapeutic Equipment Technicians

Family 3212 Medical and Pathology Laboratory Technicians

Medical and Pathology Laboratory Technicians perform clinical tests on specimens of bodily fluids and tissues in order to obtain information about the health of a patient or cause of death.

3212.0101

Operation Theatre Technician

Operation Theatre Technician performs any combination of following tasks before, during, and after surgery to assist surgical team: Places equipment and supplies in operating room and arranges instruments, according to instructions. Assists team members to place and position patient on table. Scrubs arms and hands and dons

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

gown and gloves. Aids team to don gowns and gloves. Maintains supply of fluids, such as plasma, saline, blood, and glucose for use during operation. Hands instruments and supplies to surgeon, holds retractors, cuts sutures, and performs other tasks as directed by surgeon during operation. Puts dressings on patient following surgery. Counts sponges, needles, and instruments before and after operation. Washes and sterilises equipment, using germicides and sterilizers. Cleans operating room.

Qualification Pack Details:

QP NOS Reference	HSS/Q2601
QP NOS Name	Operation Theatre Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3212
Title	Medical and Pathology Laboratory Technicians

3212.0201

Dialysis Technician

Dialysis Technician sets up and operates haemodialysis machine to provide dialysis treatment for patients with kidney failure: Attaches dialyser and tubing to machine to assemble for use. Mixes dialysate, according to formula. Primes dialyzer with saline or heparinised solution to prepare machine for use. Transports patient to dialysis room and positions patient on lounge chair at haemodialysis machine. Takes and records patient's pre-dialysis weight, temperature, blood pressure, pulse rate, and respiration rate. Explains dialysis procedure and operation of haemodialysis machine to patient before treatment to allay anxieties. Cleans area of access (fistula, graft, or catheter), using antiseptic solution. Connects haemodialysis machine to access in

patient's forearm or catheter site to start blood circulating through dialyser. Inspects equipment settings, including pressures, conductivity (proportion of chemicals to water), and temperature to ensure conformance to safety standards. Starts blood flow pump at prescribed rate. Inspects venous and arterial pressures as registered on equipment to ensure pressures are within established limits. Calculates fluid removal or replacement to be achieved during dialysis procedure. Monitors patient for adverse reaction and haemodialysis machine for malfunction. Takes and records patient's post dialysis weight, temperature, blood pressure, pulse rate, and respiration rate. May fabricate parts, such as cannulas, tubing, catheters, connectors, and fittings, using hand tools.

Qualification Pack Details:

QP NOS Reference	HSS/Q2701
QP NOS Name	Dialysis Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3212
Title	Medical and Pathology Laboratory Technicians

3212.0301

Anaesthesia Technician

Anaesthesia Technician: Paramedical professional working in hospital settings and an integral part of the anaesthesia patient care team. Also known as Anaesthetic Technician. Individuals in this job provide support to anaesthesia providers in the acquisition, preparation and application of the equipment and supplies required for the administration of anaesthesia.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	HSS/Q2501
QP NOS Name	Anaesthesia Technician
NSQF Level	4

Phlebotomy Technician (PBT) in the Health Industry is also known as Phlebotomist. Individuals in this job need to draw quality blood samples from patients and prepare those specimens for medical testing.

ISCO 08 Unit Group Details:

Code	3212
Title	Medical and Pathology Laboratory Technicians

3212.0501

Histo-Technician

Histo-Technician(HTL) in the Healthcare Industry is also known as a Certified Histologic Technician, Histologic Aide and Histology Specialist. Histo-Technician process and prepare tissue specimens from surgery and other patient service areas. The HTL prepares tissue blocks and slides with skill and accuracy for evaluation by Pathologists. The Histo-Technician must continually employ judgment gained from knowledge, practice, and experience to adjust technique for proficient execution of the manual skills of microtomy, embedding and staining. The HTL must demonstrate knowledge of tissue specimens, anatomy and dissection techniques.

Qualification Pack Details:

QP NOS Reference	HSS/Q0401
QP NOS Name	Histo-Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3212
Title	Medical and Pathology Laboratory Technicians

3212.0601

Phlebotomy Technician

Qualification Pack Details:

QP NOS Reference	HSS/Q0501
QP NOS Name	Phlebotomy Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3212
Title	Medical and Pathology Laboratory Technicians

3212.0602

Blood Bank Technician

Blood Bank Technician in the Healthcare Industry is also known as Phlebotomy Technicians and Blood Bank Laboratory Technician. Blood Bank Technicians work in a lab to collect, label and store blood. The Blood Bank Technicians test samples to screen potential donors, store blood, draws and maintain documentation and records. They make patients comfortable during the procedure and monitor their vital signs. They also check compatibility blood before issuing it out for transfusion.

Qualification Pack Details:

QP NOS Reference	HSS/Q2801
QP NOS Name	Blood Bank Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3212
Title	Medical and Pathology Laboratory Technicians

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3212.0701

Medical Laboratory Technician

Medical Laboratory Technician (MLT) is also referred to as Clinical Laboratory Science professionals, Medical Technologists and Medical Laboratory Scientists. The Medical Laboratory Technician performs complex tests for diagnosis, treatment, and prevention of disease. These professionals are responsible for supporting and assisting doctors and scientists in their day-to-day healthcare work in a variety of roles. They function as the main support to biomedical scientists in pathology laboratories. They are also sometimes responsible for imparting training and supervision to the staff.

Qualification Pack Details:

QP NOS Reference	HSS/Q0301
QP NOS Name	Medical Laboratory Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3212
Title	Medical and Pathology Laboratory Technicians

3212.9900

Dialysis Technician Life Science Technicians, Other

Life Science Technicians, other include all other Life Science Technicians engaged in arranging and setting up laboratory equipment, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3212
Title	Medical and Pathology Laboratory Technicians

Family 3213

Pharmaceutical Technicians and Assistants

Pharmaceutical Technicians and Assistants perform a variety of tasks associated with dispensing medicinal products under the guidance of a pharmacist or other health professional.

3213.0100

Pharmacist

Pharmacist, Dispenser; Compounder dispenses medicines as prescribed by Physician, Dentist, or Veterinarian. Stores and arranges drugs, prepares mixtures, powders, ointments, liniments, etc., as prescribed and gives instructions regarding dosage and use of medicines. May keep medical stores and maintain account of medical supplies, cash and daily record of prescriptions dispensed. May prepare intravenous solutions, tinctures, etc., dresses wounds, gives injections and enemas, under guidance, and render first-aid.

ISCO 08 Unit Group Details:

Code	3213
Title	Pharmaceutical Technicians and Assistants

3213.0101

Pharmacy Assistant

Pharmacy Assistant in the Healthcare Industry is also known as a Pharmacy Technician and Pharmaceutical Care Associate. Pharmacy Assistants work under the direct supervision of a registered pharmacist and perform many pharmacy-related functions. They refer any questions regarding prescriptions, drug information, or health matters to a pharmacist. They review

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

prescriptions or requests for refills that they receive from patients and nurse.

Qualification Pack Details:

QP NOS Reference	HSS/Q 5401
QP NOS Name	Pharmacy Assistant
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3213
Title	Pharmaceutical Technicians and Assistants

3213.0200

Laboratory Assistant, Pharmaceutical

Laboratory Assistant, Pharmaceutical, arranges and sets apparatus and other equipment in pharmaceutical laboratory, conducts routine tests of various ingredients for manufacture of drugs and medicines and assists Pharmaceutical Chemist in carrying out studies and experiments. Sets required types of apparatus and equipment in position as required for conducting studies and experiments. performs routine tests of different ingredients and records observations as desired. Grinds and mixes chemicals and other raw materials in prescribed proportions for study, research or manufacture of drugs and medicines such as syrups, tonics, ointments, solutions, tablets, etc. under guidance of Pharmaceutical Chemist. Collects and tests samples at various stages of production to determine effects and ensures compliance to specification. Maintains precision apparatus and equipment in good working order and in safe custody and keeps laboratory clean and tidy. May prepare samples for getting them tested by Pharmaceutical Chemist

and also do research and analysis of drugs and medicine under his guidance.

ISCO 08 Unit Group Details:

Code	3213
Title	Pharmaceutical Technicians and Assistants

3213.9900

Pharmaceutical Assistants, Other

Pharmaceutical Assistants, other includes associate professionals who dispense and prepare medicaments, lotions and mixtures under the guidance of pharmacists, in pharmacies, hospitals and dispensaries not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3213
Title	Pharmaceutical Technicians and Assistants

Family 3214

Medical and Dental Prosthetic Technicians

Medical and Dental Prosthetic Technicians design, fit, service and repair medical and dental devices and appliances following prescriptions or instructions established by a health professional. They may service a wide range of support instruments to correct physical medical or dental problems such as neck braces, orthopaedic splints, artificial limbs, hearing aids, arch supports, dentures, and dental crowns and bridges.

3214.0100

Mechanic, Dental

Mechanic, Dental; Dental Technician makes full or partial dentures, inlay,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

bridges, and crowns of metal, vulcanite or other composition plates from wax or plaster plate impressions taken by DENTIST and repairs dental aids as prescribed by him. Makes special impression trays as designed by DENTIST and prepares plaster casts of upper and lower jaws from wax impression taken by him to provide pattern for work to be done. Shapes metal vulcanite or plastic plates for dentures and sets artificial teeth in plates. Processes denture in acrylic resin or metal and makes fixed metal restorations such as crowns, bridges etc. according to impression taken by Dentist. Forms porcelain teeth and crowns and repairs or makes additions on existing dentures as directed. May assist Dentist in general dental practice and undertake chair side clinical work on patients.

ISCO 08 Unit Group Details:

Code 3214

Title Medical and Dental Prosthetic Technicians

3214.9900 Medical and Dental Prosthetic Technicians, Other

Medical and Dental Prosthetic Technicians, Other include technicians who design, fit, service and repair medical and dental devices and appliances following prescriptions or instructions established by a health professional not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3214

Title Medical and Dental Prosthetic Technicians

Group 322

Nursing and Midwifery Associate Professionals

Nursing and midwifery associate professionals provide basic nursing and personal care for people who are physically or mentally ill, disabled or infirm, and others in need of care due to potential risks to health including before, during and after childbirth. They generally work under the supervision of, and in support of implementation of health care, treatment and referrals plans established by, medical, nursing, midwifery and other health professionals.

Occupations in this Group are classified into the following Families:

3221 Nursing Associate Professionals

3222 Midwifery Associate Professionals

Family 3221 Nursing Associate Professionals

Nursing associate professionals provide basic nursing and personal care for people in need of such care due to effects of ageing, illness, injury, or other physical or mental impairment. They generally work under the supervision of, and in support of implementation of health care, treatment and referrals plans established by, medical, nursing and other health professionals.

3221.0100 Nurse, General

Nurse, General gives bedside care in cases of illness, assists Physician in examination and operation of patient and performs other nursing tasks. Maintains record of patient's treatment, temperature,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

respiration, pulse rate, nourishment, progress, etc. Administers medicines and injections, as prescribed; dresses injuries and renders first aid. Observes and reports to Physician or Surgeon mental, physical and emotional condition of patient. Prepares patient for examination or operation and helps to maintain healthy and hygienic environment for patient and takes preventive measures to check spread of communicable diseases in ward. Is designated as Matron or Nursing Superintendent, if responsible for supervision of work of nurses and related administrative duties.

ISCO 08 Unit Group Details:

Code 3221

Title Nursing Associate Professionals

3221.0200

Nurse, Industrial

Nurse Industrial renders first-aid and provides general nursing care to workers in industrial establishments. Helps to foster hygienic habits among workers and undertakes duties of preventive character, such as antimalarial precautions, quarantine, etc. is designated as Crèche Nurse and Milk Kitchen Nurse, if supervises or takes charge of crèches and milk kitchens respectively.

ISCO 08 Unit Group Details:

Code 3221

Title Nursing Associate Professionals

3221.0300

Nursing Attendant

Nursing Attendant helps nursing staff in hospitals, nursing homes in taking care of patients, and performs various miscellaneous low-skilled tasks. Assists

Nurses in taking nursing care of patients and rendering other miscellaneous services, such as giving baths, enemas, feeding them at fixed hours, preparing beds, bringing medicines from dispensary etc. Carries patients on stretchers, or in wheeled carts, to and from operation theatre, maintains cleanliness in wards and performs odd jobs such as calling Doctors or Nurses at night etc. Is designated as Ward Ayah, Ward Boy, Nursing Orderly, Pantry Attendant (Nursing), etc. according to nature of work done. May assist nursing staff in operation theatre, blood bank. May assist in massaging, dressing and bandaging.

ISCO 08 Unit Group Details:

Code 3221

Title Nursing Associate Professionals

3221.9900

**Nursing Associate Professionals,
Other**

Nurses, other include all other nursing associate professionals not classified elsewhere.

ISCO 08 Unit Group Details:

Code 3221

Title Nursing Associate Professionals

Family 3222

Midwifery Associate Professionals

Midwifery associate professionals provide basic health care and advice before, during and after pregnancy and childbirth. They implement care, treatment and referral plans usually established by medical, midwifery and other health professionals.

3222.0100

Midwife

Midwife; Maternity Assistant; Auxiliary Nurse, renders antenatal care to expectant mothers, conducts normal delivery cases, advises for consultation of doctor, when necessary, and renders post-natal care. Looks after new-born babies and recognises signs and symptoms requiring advice of Physician. Advises patients on simple matters of personal hygiene, such as cleanliness of hands, skin, hair, etc., and environmental hygiene, such as protection of food from flies and cleanliness of household. Carries out simple nursing duties. May assist Surgeon or Nurse in labour room and operation theatre.

ISCO 08 Unit Group Details:

Code 3221

Title Midwifery Associate Professionals

3222.0200

Midwifery Attendant

Midwifery Attendant; Ayah, Maternity, Dai assists Midwife or Health Visitor in rendering antenatal and post-natal care to women. Performs tasks such as bathing, massaging and feeding new born babies and their mothers, gives enemas to babies under supervision of Nurse or Midwife; maintains general cleanliness in maternity wards. May help nursing staff in operation theatres or delivery room.

ISCO 08 Unit Group Details:

Code 3221

Title Midwifery Associate Professionals

3222.0300

Lady Health Visitor/ASHA Worker/Anganwadi Worker

Lady Health Visitor renders health care at private residences and at health centres. Visits private residences in her jurisdiction to render antenatal care and advice to expectant mothers. Makes arrangements for their confinement and renders post-natal care. Renders health care to mothers, children and expectant mothers in health centres by performing variety of duties, like administering stock medicines, weighing babies, distributing milk and tonics, ensuring vaccination and inoculation, etc. Gives advice on personal and environmental hygiene. Supervises training and work of Dais. May give injections. May also conduct sewing and first aid classes at welfare centres and give family planning advice.

ISCO 08 Unit Group Details:

Code 3221

Title Midwifery Associate Professionals

3222.9900

Midwifery Associate Professionals, Other

Midwifery Associate Professionals, other include those who assist doctors or midwifery professionals in the delivery of babies, provide antenatal and post-natal care and instruct parents in baby care not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3221

Title Midwifery Associate Professionals

Group 323

Traditional and Complementary Medicine Associate Professionals

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Traditional and complementary medicine associate professionals prevent, care for and treat human physical and mental illnesses, disorders and injuries using herbal and other therapies based on theories, beliefs and experiences originating in specific cultures.

Occupations in this Group are classified into the following Families:

3230 Traditional and Complementary Medicine Associate Professionals

**Family 3230
Traditional and Complementary Medicine Associate Professionals**

Traditional and complementary medicine associate professionals prevent, care for and treat human physical and mental illnesses, disorders and injuries using herbal and other therapies based on theories, beliefs and experiences originating in specific cultures.

**Group 324
Veterinary Technicians and Assistants**

Veterinary Technicians and Assistants carry out advisory, diagnostic, preventive and curative veterinary tasks, more limited in scope and complexity than those carried out by veterinarians. They care for animals under treatment and in temporary residence at veterinary facilities and assist veterinarians to perform procedures and operations.

Occupations in this Group are classified into the following Families:

3240 Veterinary Technicians and Assistants

**Family 3240
Veterinary Technicians and Assistants**

Veterinary Technicians and Assistants carry out advisory, diagnostic, preventive and curative veterinary tasks, more limited in scope and complexity than those carried out by, and with the guidance of, veterinarians. They care for animals under treatment and in temporary residence at veterinary facilities and assist veterinarians to perform procedures and operations.

**3240.0100
Vaccinator, Veterinary**

Vaccinator, Veterinary, vaccinates, birds or animals against infectious diseases by injecting required type and quantity of vaccine or virus using syringe, needle etc. Immobilise subject (animal or bird) by tying with a rope and with help of others if necessary. Sterilises syringe, needle etc. in boiling water and by washing them with bactericidal. Examines area of body to be vaccinated. Removes feather or hair from marked part of body of subject and cleans it with bactericidal to prevent chances of failure. Loads syringe with vaccine or virus of required quantity and injects it in body as specified. Withdraws syringe needle from body and rubs injected part with cotton soaked in antiseptic liquid to prevent shedding of blood. Recommends hygienic precautions to owner or attendant. Maintains register-showing details of animals vaccinated, vaccine or virus used, etc. May visit vaccinated animals for after care instructions.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 3240

Title Veterinary Technicians and Assistants

3240.0200

Stockman

Stockman; conducts activities of raising and breeding animals and attends to minor ailments and castration of male stock. Buys feed of stock, and weighs and stores them. Prepares diet and feeds stock. Cleans barns and cattle by washing them with water. Arranges grazing on natural pastures. Looks after young at birth. Feeds, cleans and houses them. Treats minor ailments of cattle. Conducts artificial insemination of cattle for improved breed. Arranges mating. Keeps record of pedigrees, coverings, births, etc. Undertakes operations in yard directed towards raising and breeding of stock.

ISCO 08 Unit Group Details:

Code 3240

Title Veterinary Technicians and Assistants

3240.0300

Animal Keeper

Animal Keeper feeds waters and cleans quarters of animals and birds in zoo, circus, chemical, medical or biological research laboratories. Feeds and waters animals as per schedule or prescribed diet list and records amount of food consumed. Observes and reports sick animals to relevant authorities. treats minor injuries and ailments under directions of Veterinarian or respective authorities. Shaves operative area of animals, to prepare them for surgery and administer anaesthetics if engaged in biological or medical research

laboratories. Cleans and sterilises cages, pens and surrounding areas. Collects feed and supplies from store. May repair cages and equipment. May prepare animal feed, bathe and groom animals. May remove dead animals for disposal. May be known as ANIMAL CARE TAKER if engaged in medical or biological research laboratories. May also be designated as BEAR KEEPER, BIRD KEEPER, MONKEY KEEPER, etc., according to animal cared for.

ISCO 08 Unit Group Details:

Code 3240

Title Veterinary Technicians and Assistants

3240.0400

Laboratory Technician, Artificial Breeding

Laboratory Technician, Artificial Breeding measures purity and potency of bull semen to develop improved methods for preserving and processing semen for artificial insemination of cattle. Observes sample of freshly collected sperm cells. Determines density of semen using densimeter. Adds measured amounts of extender, sodium citrate and antibiotics semen to dilute and preserve sample. Transfers semen to refrigeration unit. Cleans and sterilizes laboratory equipment. Performs experimental tests as directed such as to extend survival rate and time of sperm cells and development of improved preservative processes. Cultivates, isolates and identifies pathogenic bacteria and other micro-organism in semen.

ISCO 08 Unit Group Details:

Code 3240

Title Veterinary Technicians and Assistants

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3240.9900

Veterinary Technicians and Assistants, Other

Veterinary Assistants, other include all other veterinary associate professionals not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3240

Title Veterinary Technicians and Assistants

3259 Modern Health Associate Professionals, Not Elsewhere Classified

Family 3251 Dental Assistants and Therapists

Dental Assistants and therapists provide basic dental care services for the prevention and treatment of diseases and disorders of the teeth and mouth, as per care plans and procedures established by a dentist or other oral health professional.

Group 325 Other Health Associate Professionals

Other health associate professionals perform technical tasks and provide support services in dentistry, medical records administration, community health, the correction of reduced visual acuity, physiotherapy, environmental health, emergency medical treatment and other activities to support and promote human health.

Occupations in this Group are classified into the following Families:

3251 Dental Assistants and Therapists
3252 Medical Records and Health Information Technicians
3253 Community Health Workers
3254 Dispensing Opticians
3255 Physiotherapy Technicians and Assistants
3256 Medical Assistants
3257 Environmental and Occupational Health Inspectors and Associates
3258 Ambulance Workers

3251.0101 Dental Assistant

Dental Assistant; Dentists Assistant prepares patients for examination, treatment or dental surgery and assists Dentist in performing his work by handing him necessary implements or equipment and by keeping patients comfortable. Obtains and records patient's personal information and medical history and records dental treatment rendered. Seats patient and prepares him for treatment. Arranges dental instruments, materials, and medications and hands them to Dentist as required. Keeps oral operating area clear during dental procedures by use of suction devices, water sprays, cotton rolls and holders and by retraction of cheek and tongue. Measures silver alloy powder and mercury, and operates mechanical amalgamator to prepare dental amalgam. Supplies portions of filling materials to Dentist as required during placement of restorations. Gives emergency treatment for local and systematic distress under Dentist's direction. Sterilises instruments in autoclaves, dry heat ovens or with chemical disinfectants. May expose and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

process dental X-ray films as directed by Dentist.

Qualification Pack Details:

QP NOS Reference HSS/Q 2401
QP NOS Name Dental Assistant
NSQF Level 4

ISCO 08 Unit Group Details:

Code 321
Title Dental Assistants and Therapists

3251.9900

Dental Assistants and Therapists, Other

Dental Assistants, other include all those who carry out advisory, diagnostic, preventive and curative dental tasks, more limited in scope and complexity than those carried out by Dentists not elsewhere classified.

ISCO 08 Unit Group Details:

Code 321
Title Dental Assistants and Therapists

Family 3252

Medical Records and Health Information Technicians

Medical Records and Health Information Technicians develop, maintain and implement health records processing, storage and retrieval systems in medical facilities and other health care settings to meet the legal professional, ethical and administrative records-keeping requirements of health services delivery.

3252.0101

Medical Records and Health Information Technician

Medical Records and Health Information Technician in the Healthcare Industry is also known as a Medical Records Clerk, Health Information Clerk, Medical Records Technician, File Clerk, Medical Records Coordinator and Medical Records Analyst. Medical Records and Health Information Technician compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. They process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system.

Qualification Pack Details:

QP NOS Reference HSS/Q 5501
QP NOS Name Medical Records and Health Information Technician
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3252
Title Medical Records and Health Information Technicians

Family 3253

Community Health Workers

Community Health Workers provide health education, referral and follow up, case management, and basic preventive health care and home visiting services to specific communities. They provide support and assistance to individuals and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

families in navigating the health and social services system.

3253.0101

Diabetes Educator

Diabetes Educator Health professionals involved in the care of people with diabetes through communication, counselling and education. Individuals in this job are involved in understanding the impact of health behaviour and lifestyle on acute and chronic problems of diabetes and provide a comprehensive, cost effective and self-care management plan.

Qualification Pack Details:

QP NOS Reference	HSS/Q8701
QP NOS Name	Diabetes Educator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3253
Title	Community Health Workers

3253.0201

Frontline Health Worker

Voluntary health worker engaged at village level in implementation and support of National health programmes. Individuals in this job provide support to Allied health workers engaged in National health programmes. Act as health counsellors to local communities and provide healthcare services

Qualification Pack Details:

QP NOS Reference	HSS/Q8601
QP NOS Name	Frontline Health Worker (Equivalent to ASHA)
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3253
Title	Community Health Workers

3253.9900

Community Health Workers, Other

Community Health Workers, Other include health workers who provide health education, referral and follow up, case management, and basic preventive health care and home visiting services to specific communities not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3253
Title	Community Health Workers

Family 3254

Dispensing Opticians

Dispensing opticians design fit and dispense optical lenses based on a prescription from an ophthalmologist or optometrist for the correction of reduced visual acuity. They service corrective eyeglasses, contact lenses, low-vision aids and other optical devices.

3254.0100

Optician, General

Optician, General; Optician, dispensing fabricates lenses to prescription specifications, fits lenses in frames, assists customer in choice of frames and fits frames to customer. Reads prescription for frame and lens specifications. Assists customer in choosing frames by advising correct size and shape according to facial features. Measures customer for bridge length and pupillary distance using ruler, and prepares work order slip. Selects lens blank from stock. Sets up and operates

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machines, such as generator, polisher, edger and hardener to make lens to specifications. Adjusts finished eye glasses to fit customer by hearing and shaping plastic or by bending metal frame with fingers and pliers. Inspects lenses and determines specifications of broken lenses with power determining and optical instruments. May examine eyes to determine visual efficiency and performance by means of instrumentation and observation and prescribe corrective eyeglasses. May sell other optical goods, such as binoculars, magnifying glasses and non-prescription sunglasses.

ISCO 08 Unit Group Details:

Code 3254
Title Dispensing Opticians

3254.0200

Optician, Contact-Lens

Optician, Contact Lens examines customer's eyes and fits contact lenses to prescription specifications. Measures height and width of eyes and diameter of cornea using millimetre rule. Examines eyelid surface for presence of irregularities. Determines base curve of cornea, using Keratometer. Converts optical prescription into terms applicable to contact lenses. Positions trial lenses on patient's eyes to determine adaptability and wearer discomfort. Explains procedures for installing, removing and cleaning lenses. Grinds finished lenses to fit wearer. May examine eyes and prescribe lens and subnormal vision devices.

ISCO 08 Unit Group Details:

Code 3254
Title Dispensing Opticians

3254.9900

Dispensing Opticians, Other

Dispensing Opticians, Other include opticians who design, fit and dispense optical lenses based on a prescription from an ophthalmologist or optometrist for the correction of reduced visual acuity not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3254
Title Dispensing Opticians

Family 3255

Physiotherapy Technicians and Assistants

Physiotherapy Technicians and Assistants provide physical therapeutic treatments to patients in circumstances where functional movement is threatened by injury, disease or impairment. Therapies are usually provided as per rehabilitative plans established by a physiotherapist or other health professional.

3255.0101

Assistant Physiotherapist

Assistant Physiotherapist in the Healthcare Industry is also known as Physical Therapist Assistant (PTA). Assistant Physiotherapist work alongside qualified physiotherapists, assisting in the rehabilitation of patients suffering from reduced mobility. Key tasks of an Assistant Physiotherapist include setting up equipment, preparing clients for therapy and demonstrating mobility aids and exercises. Other duties may include keeping the department tidy and basic administration work.

Qualification Pack Details:

QP NOS Reference HSS/Q7701

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Assistant Physiotherapist
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3255
Title	Physiotherapy Technicians and Assistants

Vision Technician performs administrative and certain clinical duties. Administrative duties may include scheduling appointments, maintaining medical records and clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, and dispensing ophthalmic prescription.

Family 3256

Medical Assistants

Medical Assistants perform basic clinical and administrative tasks to support patient care under the direct supervision of a medical practitioner or other health professional.

3256.0101 Refractionist

Refractionist in the healthcare industry is also known as Ophthalmic Assistant. Refractionist provides vision care and refraction under the supervision of an ophthalmologist. They assist with taking patient histories, performing diagnostic tests and procedures, dispensing optical prescription and maintaining records.

Qualification Pack Details:

QP NOS Reference	HSS/Q3002
QP NOS Name	Refractionist
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3256
Title	Medical Assistants

3256.0202 Vision Technician

Vision Technician in the healthcare industry is also known as Eye Technician.

Qualification Pack Details:

QP NOS Reference	HSS/Q3001
QP NOS Name	Vision
Technician	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3256
Title	Medical Assistants

3256.9900

Medical Assistants, Other

Medical Assistants, Other include associate professionals who carry out advisory, diagnostic, preventive and creative and curative medical tasks, more limited in scope and complexity than those carried out by medical doctors, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3256
Title	Medical Assistants

Family 3257

Environmental and Occupational Health Inspectors and Associates

Environmental and Occupational Health Inspectors and Associates investigate the implementation of rules and regulations relating to environmental factors that may affect human health, safety in the

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

workplace, and safety of processes for the production of goods and services. They may implement and evaluate programmes to restore or improve safety and sanitary conditions under the supervision of a health professional.

3257.0100

Sanitary Inspector

Sanitary Inspector; Health Assistant takes measures to maintain and improve standard of public health in specified area. Inspects houses, shops, factories, entertainment places, bazars, drains, night soil depots, rubbish depots, latrines, burial and cremation ground, etc., and undertakes public health activities such as disinfections, anti-malarial and anti-epidemic measures. Inspects hotels, restaurants, etc. to ensure that food and edibles sold are fit for public consumption. Attends to complaints regarding sanitation. Reports outbreak of infectious diseases to authorities and takes preventive measures. Attends courts for prosecution of persons violating sanitation and public health regulations and performs inoculation work. Controls and supervises work of Sanitary Daroghas. May maintain accounts and correspondence, compile figures of births and deaths in his jurisdiction and may investigate causes of death. May be designated as Disinfecting Inspector, Food Inspector, Slaughter House Inspector, Mosquito Inspector, etc. according to nature of work performed.

ISCO 08 Unit Group Details:

Code 3257

Title Environmental and Occupational Health Inspectors and Associates

3257.0300

Environment Science and Protection Technician, Including Health

Environmental Science and Protection Technicians, Including Health records test data and prepares reports, summaries, and charts that interpret test results. Collects samples of gases, soils, water, industrial wastewater, and asbestos products to conduct tests on pollutant levels and identify sources of pollution. Respond to and investigate hazardous conditions or spills, or outbreaks of disease or food poisoning, collecting samples for analysis. Provides information and technical and programme assistance to government Representatives, employers and the general public on the issues of public health, environmental protection or workplace safety. Calibrates microscopes and test instruments. Makes recommendations to control or eliminate unsafe conditions at workplaces or public facilities. Inspects sanitary conditions at public facilities. Prepares samples or photomicrographs for testing and analysis. Calculates amount of pollutant in samples or computes air pollution or gas flow in industrial processes, using chemical and mathematical formulas. Initiates procedures to close down or fine establishments violating environmental and/or health regulations.

ISCO 08 Unit Group Details:

Code 3257

Title Environmental and Occupational Health Inspectors and Associates

3257.0400

Environmental Compliance Inspector

Environmental Compliance Inspector inspects and investigate sources of pollution to protect the public and environment and ensure conformance with Central, State, and local regulations and ordinances. Inspects solid waste disposal and treatment facilities, wastewater treatment facilities, or other water courses or sites for conformance with regulations. Inspects establishments to ensure that handling, storage, and disposal of fertilisers, pesticides, and other hazardous chemicals conform with regulations. Conducts field tests and collects samples for laboratory analysis. Examines permits, licenses, applications, and records to ensure compliance with licensing requirements. Assists in development of spill prevention programmes and hazardous waste rules and regulations, and recommends corrective action in event of hazardous spill. Prepares, organizes, and maintains records to document activities, recommend action, provide reference materials, and prepare technical and evidentiary reports. Studies laws and statutes to determine nature of code violation and type of action to be taken. Advises individuals and groups concerning pollution control regulations, inspection and investigation findings, and encourages voluntary action to correct problems.

ISCO 08 Unit Group Details:

Code 3257

Title Environmental and Occupational Health Inspectors and Associates

3257.0500 Environmental Engineering Technician

Environmental Engineering Technician applies theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental pollution, including waste treatment and site remediation. May assist in the development of environmental pollution remediation devices under direction of engineer. Perform environmental quality work in field and office settings. Receive, setup, test, and decontaminate equipment. Arranges for the disposal of lead, asbestos and other hazardous materials. Assists in the clean up of hazardous material spills.

Conducts pollution surveys, collecting and analysing samples such as air and groundwater. Develops work plans, including writing specifications and establishing material, manpower and facilities needed. Inspect facilities to monitor compliance with regulations governing substances such as asbestos, lead, and wastewater.

ISCO 08 Unit Group Details:

Code 3257

Title Environmental and Occupational Health Inspectors and Associates

3257.0600

Health, Safety and Environment Officer

Health, Safety and Environment Officer applies theory and principles of environmental engineering and occupational health and safety at the work site to ensure a safe and healthful working environment, protect the surrounding environment that may be impacted by the facility, improve employee relations and productivity, and minimize business risk through the

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

identification and elimination/minimization of environmental, health and safety risks.

ISCO 08 Unit Group Details:

Code 3257

Title Environmental and Occupational Health Inspectors and Associates

3257.9900

Environment Science and Protection Technicians, Other

Environmental Science and Protection Technicians, other include all other technicians engaged in monitoring the environment and investigating the sources of pollution, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3257

Title Environmental and Occupational Health Inspectors and Associates

Family 3258

Ambulance Workers

Ambulance Workers provide emergency health care to patients who are injured, sick, infirm, or otherwise physically or mentally impaired prior to and during transport to medical facilities.

Family 3259

Modern Health Associate Professionals, Not Elsewhere Classified

This family covers health associate professionals not classified elsewhere. For instance, the group includes occupations such as chiropractor, osteopath and other health associate professionals.

Sub Division 33

Business and Administration Associate Professionals

Business and Administration Associate professionals perform mostly technical tasks connected with the practical application of knowledge relating to financial accounting and transaction matters, mathematical calculations, human resource development, selling and buying financial instruments, specialized secretarial tasks, and enforcing or applying relevant government rules. Also included are workers who provide business services such as customs clearance, conference planning, job placements, buying and selling real estate or bulk commodities, and serving as agents for performers such as athletes and artists.

Tasks performed by workers in this sub-major group usually include recording and transmitting buy and sell orders for securities, stocks, bonds or other financial instruments and for foreign exchange for future or immediate delivery; submitting credit and loan applications to management with recommendations for approval or rejection; approving or rejecting applications within authorized limits ensuring that credit standards of the institution is respected; maintaining complete records of all financial transactions of an undertaking according to general bookkeeping principles, with guidance from Accountants; assisting in planning and performing mathematical, statistical, actuarial, accounting and related calculations; selling and buying financial instruments.

Occupations in this Sub Division are classified into the following Groups:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

331	Financial and Mathematical Associate Professionals
332	Sales and Purchasing Agents and Brokers
333	Business Service Agents
334	Administrative and Specialized Secretaries
335	Government Regulatory Associate Professionals

Group 331 Financial and Mathematical Associate Professionals

Financial and Mathematical Associate professionals place a value on various items and property, maintain records of financial transactions, analyse loan application information and render a decision, buy and sell financial instruments, and perform mathematical and related calculations.

Occupations in this Group are classified into the following Families:

3311	Securities and Finance Dealers and Brokers
3312	Credit and Loan Officers
3313	Accounting Associate Professionals
3314	Statistical, Mathematical and Related Associate Professionals
3315	Valuers and Loss Assessors

Family 3311 Securities and Finance Dealers and Brokers

Securities and Finance Dealers and Brokers buy and sell securities, stocks, bonds and other financial instruments, and deal on the foreign exchange, on spot, or on futures markets, on behalf of

their own company or for customers on a commission basis. They recommend transactions to clients or senior management.

3311.0100 Broker, Share Market

Broker, Share-Market; Dalal, Share Market furnishes information to prospective customers regarding shares, bonds, securities, prospects of business and market conditions and buys and sells shares bonds, securities, etc. on behalf of customer in stock exchange on commission basis. Studies balance sheets of various business concerns and market rates of important shares, bonds, securities, etc. and explains to customers about the advantages and disadvantages of purchasing, selling or exchanging different types of shares, bonds, etc. Buys and sells shares etc. in stock exchange on behalf of customers according to instructions. Maintains account of day-to-day transactions and settles account with client periodically after deducting his commission. Transacts business either personally or through agent in trading-ring with other Brokers or their authorised agents. Attends to all correspondence connected with his business. May purchase and sell shares, securities, bonds, etc. on his own behalf.

ISCO 08 Unit Group Details:

Code 3311
Title Securities and Finance Dealers and Brokers

3311.0200 Jobber, Share Market

Jobber, Share-Market purchases and sells shares, securities, etc. in trading-ring of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

stock-exchange (place where Brokers and Jobbers meet at stipulated hours for making transactions) to speculate and make profits due to fluctuations in prices of shares, securities, etc. Attends trading-ring of Stock-Exchange at stipulated hours. Watches market trend and movement of prices of different shares, securities etc. Makes transactions with other Brokers, Jobbers or their authorised agents at prices which appear favourable to him. Keeps record of transactions made by him on note-book called 'Soda-Book'. Remains alert and tries to make profit even out of minor fluctuations. May purchase and sell shares and securities on behalf of client for brokerage. May maintain record of his transactions.

ISCO 08 Unit Group Details:

Code	3311
Title	Securities and Finance Dealers and Brokers

3311.0201 Equity Dealer

Equity Dealers buy and sell investment and financial instruments on behalf of their clients. They also provide market insights and investment advice to potential and existing clients as per the organizational standards and procedures

Qualification Pack Details:

QP NOS Reference	BSC/Q 0201
QP NOS Name	Equity Dealer

ISCO 08 Unit Group Details:

Code	3311
Title	Securities and Finance Dealers and Brokers

3311.0202

Mutual Fund Agent

Mutual Fund Agent is representative of a bank or similar financial institution, who offers mutual funds to prospective investors, maintains records of their investments and conducts regular market research to advise customers.

Qualification Pack Details:

QP NOS Reference	BSC/Q 0601
QP NOS Name	Mutual Fund Agent
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3311
Title	Securities and Finance Dealers and Brokers

3311.9900

Securities and Finance Dealers and Brokers, Other

Securities and Financial Dealers and Brokers, other buy and sell financial instruments, real estate, securities and services and include all such workers not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3311
Title	Securities and Finance Dealers and Brokers

Family 3312 Credit and Loan Officers

Credit and Loan Officers analyse and evaluate financial information on applications for credit and loans and determine approval or disapproval of the client for the credit or loan or recommend to management approval or disapproval.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3312.0100

Finance Agent

Finance Agent arranges loan for clients from financiers on security of real estate, property, etc. Obtains from client details regarding amount of loan needed, rate of interest willing to pay, period for which required, security offered, etc. Scrutinises list of financiers maintained by him, to find out financiers willing to advance loan on specified terms. Negotiates between parties concerned and helps them to arrive at agreement. Goes to legal experts along with parties for drawing out terms of contract and finalising deal. Gets his commission from clients on amount of loan arranged by him. May collect amount of interest due from clients and pay to financier. May also act as Estate Broker. May arrange loan for client through bank without security and by operating hundis.

ISCO 08 Unit Group Details:

Code 3312

Title Credit and Loan Officers

3312.0101

Loan Approval Officer

Loan Approval Officers evaluate, authorize, or recommend approval of loan applications for people and businesses. Their tasks include compiling the loan application file, performing preliminary checks, approving loans and submitting recommendations for loans beyond their limits for further processing.

Qualification Pack Details:

QP NOS Reference BSC/Q 0401

QP NOS Name Loan Approval
Officer

NSQF Level 4

ISCO 08 Unit Group Details:

Code 3312

Title Credit and Loan Officers

3312.9900

Credit and Loan Officers, Other

Credit and Loan Officers, Other include officers who analyse and evaluate financial information on applications for credit and loans and determine approval or disapproval of the client for the credit or loan or recommend to management approval or disapproval not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3312

Title Credit and Loan Officers

Family 3313

Accounting Associate Professionals

Accounting Associate Professionals maintain complete records of financial transactions of an undertaking and verify accuracy of documents and records relating to such transactions.

Family 3314

Statistical, Mathematical and Related Associate Professionals

Statistical, Mathematical and Actuarial Associate professionals assist in planning the collection, processing and presentation of statistical, mathematical or actuarial data and in carrying out these operations, usually working under the guidance of statisticians, mathematicians and actuaries.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3314.0100

Economic Investigator

Economic Investigator collects statistical and other data on prescribed forms by observation, interview, interrogation or by application of other standardized technique for study, analysis and interpretation of various economic problems. Fixes time table or arranges programme of investigation work as directed. Visits areas or places for collection of data according to schedule in prescribed forms. Records information on prescribed forms by observation, interview, interrogation or by application of other standardized technique. Conducts sample verification of data collected. Compiles, tabulates and processes data in prescribed forms for analysis and interpretation. Reports to superiors on results achieved.

ISCO 08 Unit Group Details:

Code 3313

Title Statistical, Mathematical and Related Associate Professionals

3314.0200

Statistical Assistant

Statistical Assistant; Statistical Investigator Collects, compiles and scrutinises statistical data and arranges it in systematic manner to facilitate its analysis, interpretation and presentation, Checks collected data for consistency and reduces quantitative data in convenient form by making statistical calculations. Analyses data to find out dispersion and magnitude of errors. Attends to computation for advanced statistical calculations. Arranges analysed data in proper order in charts, graphs, diagrams etc. for interpretation and publication. May conduct field investigation to collect

data on prescribed schedule. May write reports of investigation. May supervise work of Computers and Investigators and guide them when necessary. May operate calculating machines.

ISCO 08 Unit Group Details:

Code 3313

Title Statistical, Mathematical and Related Associate Professionals

3314.9900

Statistical, Mathematical and Related Associate Professionals, Other

Statistical, Mathematical and Related Associated Professionals, other include those mathematicians, statisticians and related associate professionals not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3313

Title Statistical, Mathematical and Related Associate Professionals

Family 3315

Valuers and Loss Assessors

Valuers and Loss Assessors value property and various goods and assess losses covered by insurance policies.

3315.0100

Valuer

Valuer; Appraiser determines current monetary value of real estate, personal and household effects, books, paintings and other art objects on instructions from seller, creditor, bank, court, archives, etc.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

on commission basis. Visits place where property to be valued is located. Examines items of property for condition and authenticity and estimates its value. Consults jewellers, artists, etc. for determining current value, where necessary. Makes inventory of property and submits estimates regarding value to clients concerned. Charges commission for work done.

ISCO 08 Unit Group Details:

Code	3315
Title	Valuers and Loss Assessors

3315.0200

Claims Inspector, Railways

Claims Inspector, Railway inspects booking, transportation and delivery to ensure strict compliance of railway rules for safety against loss or damages during transit and investigates claims. Examines goods and articles booked for defective packing and inspects seals and locks of waggons in transit to check tampering. Calculates booking charges for correct assessment of charges. Investigates claims for loss or damage filed in conjunction with booking tariff. Evaluates loss by examination of traders' or claimants' account books and market rates. Determines responsibility of railway staff, if any, for loss or damages and arranges recovery. Traces missing consignment, if possible. May attend case hearings for claims made in court.

ISCO 08 Unit Group Details:

Code	3315
Title	Valuers and Loss Assessors

3315.0300

Appraiser, Customs

Appraiser, Customs determines monetary worth of merchandise and various kinds of goods, such as art objects, gold ornaments, gems and other luxury goods for assessment of customs duty. Examines bills presented by importer or his agent and ensures that entries are properly made. Gives first check order to shed-appraiser calling for further details or sample if necessary. Supervises examination of all imported merchandise and inspects or examines articles in question, using knowledge and experience of scientific tests and original values to arrive at final estimate. Submits estimate to importer. Furnishes Customs Collector with necessary information for assessment of duty on imported merchandise as per Act. May be a specialized appraiser in particular type of articles and be designated accordingly.

ISCO 08 Unit Group Details:

Code	3315
Title	Valuers and Loss Assessors

3315.0501

Warranty In charge

Warranty In charge manages warranty claims and spare parts replaced under warranty. He is responsible for taking all major warranty decisions as per the OEM guidelines/manual. The individual should provide information on warranty policies and supervise both the replacement of failed parts/aggregates replaced under warranty as well as disposal of the same.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1604
QP NOS Name	Warranty In charge
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3315
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Valuers and Loss Assessors

3315.9900

Valuers and Loss Assessors; Other

Appraisers, Valuers and Auctioneers, other include all other associate professional engaged in valuation of property and various goods and assessment of losses covered by insurance policies, or sell objects, properties and goods by auction not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3315

Title Valuers and Loss Assessors

Group 332

Sales and Purchasing Agents and Brokers

Sales and purchasing agents and brokers represent companies, governments and other organizations to buy and sell commodities, goods, insurance, shipping and other services to industrial, professional, commercial or other establishments, or act as independent agents to bring together buyers and sellers of commodities and services.

Occupations in this Group are classified into the following Families:

3321 Insurance Representatives
3322 Commercial Sales Representatives
3323 Buyers
3324 Trade Brokers

Family 3321

Insurance Representatives

Insurance representatives advise on and sell life, accident, automobile, liability,

endowment, fire, marine and other types of insurance to new and established clients.

3321.0100

Insurance Agent

Insurance Agent contacts prospective clients and canvasses sale of insurance policies covering risk to life, property, etc. Compiles list of prospective clients through social contacts, business directories, etc. Draws out programme of contacts and interviews with prospective clients. Acts as licensed representative of insurer and procures insurance business on commission basis. Attempts to sell insurance by explaining benefits of various suitable plans devised by company to cover risk to life, family, property, business, etc. Gets proposal form filled by client. Makes arrangements for medical examination, property inspection or other policy stipulations. Collects advance deposit against first premium and deposits same in Branch Office, Bank, etc. if authorised. Assists policy-holders in servicing their policies. Ensures that he secures stipulated business annually. Keeps record of business booked by him and collects from company amount of commission due to him. Takes guidance of Field or Development Officer, whenever necessary. May assist policyholders in getting their claims settled. May collect premium on behalf of company and deposit same in Branch Office, Bank, etc.

ISCO 08 Unit Group Details:

Code 3321

Title Insurance Representatives

3321.0101

Sales Officer (Auto Insurance)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Sales Officer (Auto Insurance) is responsible for the selling of retail insurance products, such as for general vehicles, bulk/institutional vehicles, commercial vehicle and collection of their premiums.

Qualification Pack Details:

QP NOS Reference	ASC/Q2101
QP NOS Name	Sales Officer (Auto Insurance)
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3321
Title	Insurance Representatives

3321.0102

Sales Consultant (Auto Finance)

Sales Consultant (Auto Finance) is also known as Branch Sales Manager, Sales Executive, Field Officer, Business Development Manager, Customer Relationship Manager and Field Sales Officer. A Sales Consultant (Auto Finance) is responsible for the sale of retail financial products such as vehicle/automobile loans, bulk/institutional vehicle loans and commercial vehicle loans and collection post the financial product is sold.

Qualification Pack Details:

QP NOS Reference	ASC/Q2001
QP NOS Name	Sales
Consultant (Auto Finance)	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3321
Title	Insurance Representatives

3321.0200

Insurance Adjuster, Examiner, Surveyor and Investigator

Insurance Adjuster, Examiner, surveyor, and Investigator investigates, analyses, and determines the extent of insurance company's liability concerning personal, casualty, or property loss or damages, and attempts to effect settlement with claimants. Corresponds with or interviews medical specialists, agents, witnesses, or claimants to compile information. Calculates benefit payments and approves payment of claims within a certain monetary limit. Interviews or corresponds with claimant and witnesses, consults police and hospital records, and inspects property damage to determine extent of liability. Investigates and assesses damage to property. Examines claims form and other records to determine insurance coverage. Analyses information gathered by investigation and report findings and recommendations. Negotiates claim settlements and recommends litigation when settlement cannot be negotiated. Prepares report of findings of investigation. Collects evidence to support contested claims in court. Interviews or corresponds with agents and claimants to correct errors or omissions and to investigate questionable claims. Refers questionable claims to investigator or claims adjuster for investigation or settlement. Examines titles to property to determine validity and act as company agent in transactions with property owners.

ISCO 08 Unit Group Details:

Code	3321
Title	Insurance Representatives

3321.0201

Finance, Insurance and Registration

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Co-ordinator

Finance, Insurance and Registration Co-ordinator is responsible for handling financing and insurance of the vehicle prior to its sale and registration process after the sale of the vehicle at the dealership. The individual is also responsible for managing the financing and insurance liaison with OEM and finance/Insurance Banks/NBFCs

Qualification Pack Details:

QP NOS Reference	ASC/Q 1201
QP NOS Name	Finance,
Insurance and Registration	
Co-ordinator	

NSQF Level 5

ISCO 08 Unit Group Details:

Code	3321
Title	Insurance Representatives

3321.9900

Insurance Representatives, Other

Insurance Representatives, other include those who advise on and sell life, accident, automobile, liability, endowment, fire, marine and other types of insurance to new and established clients not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3321
Title	Insurance Representatives

Family 3322

Commercial Sales Representatives

Commercial sales representatives represent companies to sell various goods and services to businesses and other organizations and provide product specific information as required.

3322.0101

Sales Representative, Technical

Sales Representative, Technical travels in allotted area and canvasses for sale of machinery, plants, equipment, accessories, etc. Plans daily visits to prospective clients in allotted area. Introduces his products by showing samples, catalogues and relevant literature. Arranges demonstration of his products if necessary and renders necessary instructions regarding use, operations, maintenance, servicing and other technical details. Advises customers in computing costs of installation and savings in production costs, and gives them estimates, blueprints etc. Follows up his visits, discusses and finalises with clients, price, cost of installation, credit terms, etc. Books orders and forwards them to controlling office for compliance. Submits report to controlling office on day-to-day progress of work and makes suggestions for improving sales. Studies literature supplied by manufacturers and keeps abreast with latest technical developments. May attend to erection and servicing of machinery or plant supplied and ensure that Technical Demonstrators, Fitters, etc. execute their tasks properly.

Qualification Pack Details:

QP NOS Reference	ASC/Q1801
QP NOS Name	Sales
Representative	

NSQF Level 5

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.0200

Commercial Traveller, General

Commercial Traveller, General; Touring Salesman; Travelling Salesman travels in allotted areas and canvasses local dealers and consumers to buy his products. Plans daily visits to cover all important dealers and consumers in his area. Introduces products by showing samples, catalogues etc. Persuades intending purchasers to buy and stock his products. Discusses and finalises terms regarding sales, commission, credit facilities, etc. Books order and forwards it to head office for compliance. Gives advance information to dealers and consumers of contemplated rise in prices, etc. Ensures that publicity material is properly displayed in area. Submits report of his canvassing activities and marketing conditions to head office and makes suggestions for imp roving sales. Keeps record of orders booked and sales effected by him. Maintains contacts with officers of head office to ensure that orders placed are executed promptly. May deliver or arrange to deliver products to dealers if required urgently. May collect payments for products sold.

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

3322.0300

Canvasser, Sales

Canvasser, Sales; Salesman Demonstrator calls on customers in area allotted and solicits business for goods by creating buying interest among customers. Plans out his visits and goes from door to door in allotted area. Explains purpose of visit and introduces product concerned to customers. Explains uses, merits, durability and other distinguishing features of goods to customers.

Distributes literature and sample and gives demonstration if necessary. Follows up visits by calling again to find out result and views of customers. Books orders and posts them to delivery department for execution. Visits old customers to find out their difficulties and requirements. Submits report on his canvassing activities and makes suggestions for improvement of sales to employer. May work on salary or commission basis or both.

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

3322.0500

Sales Supervisor, Wholesale Trade

Sales Supervisor, Wholesale Trade supervises wholesale business of any commodity in particular area of specified zone to effect better sale and improve supply and demand position. Contacts businessmen and takes stock of available business in his area. Directs Representatives or area Salesmen to contact prospective retail businessmen. Advises Stockists and Distributors to supply goods as required and maintains registers of sales effected. Supervises work of Representatives or area Salesmen to popularise and promote business by undertaking advertisement and publicity drives and looks into complaints of service and defective or poor quality of goods for improvement. Informs head office of market trends and of defects or complaints noticed in products, suggesting improvements to avoid adverse effects on business. Submits prescribed returns and reports performance of juniors and sub-ordinates to head office for service benefits or otherwise.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

3322.0601

Key Accounts Sales Manager

Key Accounts Sales Manager is responsible for tracking all activities in the assigned area for selling vehicle to corporate, fleet, bulk or institutional customers. The individual is responsible for ensuring smooth flow of sales process to bulk customers from the channel partner or directly through the OEM.

Qualification Pack Details:

QP NOS Reference ASC/Q 0102

QP NOS Name Key Accounts Sales Manager

NSQF Level 5

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

3322.0701

Regional Parts Manager

Regional parts Manager is responsible for managing spare parts business for the OEM across the region. The individual manages and ensures spare parts movement.

Qualification Pack Details:

QP NOS Reference ASC/Q0606

QP NOS Name Regional Parts Manager

NSQF Level 6

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

3322.0801

Area Manager (Auto Components)

Area Manager (Auto Components) will be accountable for achieving the sales objectives of their area, and is responsible for budget preparation and cost management of the distributors along with ensuring the development, tracking and reporting of sales and action plans in collaboration with the sales teams. The responsibility also includes generating additional sales through new accounts/customers in the allocated territory/area.

Qualification Pack Details:

QP NOS Reference ASC/Q 1702

QP NOS Name Area Manager (Auto Components)

NSQF Level 7

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

3322.0802

Sales Officer (Auto Components)

Sales Officer (Auto Components) is responsible for planning sales target for the auto components used by various OEMs through Auto Components distributors/OEM dealers and ensure higher sales

Qualification Pack Details:

QP NOS Reference ASC/Q 1701

QP NOS Name Sales Officer (Auto Components)

NSQF Level 4

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3322.0900

Sales Supervisor, Retail Trade

Sales Supervisor, Retail Trade supervises performance of Sales girls and Salesmen in department stores, emporia, etc. to co-ordinate their functions and ensure smooth selling activities. Gets merchandise properly arranged by Shop Attendants according to quality, demand, price range, etc. and labels them for display to prospective Buyers. Ensures that Salesmen, Retail and Shop Assistants attend to customers promptly and politely and effect sales in regular manner by creating purchasing interest in customers. Watches measuring or weighing, collection of money, packing and other selling activities and ensures cordial and renewed interest of customers for future purchases. Maintains stock of goods in demand and replenishes them as necessary. May personally attend to customers during rush hours. May take special interest in attending, introducing new items and selling articles to patrons, foreigners and important persons. May handle cash and maintain stock and sales accounts. May work as Field Supervisor, co-ordinate function of Sales Representatives and publicise marketing activities.

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

3322.1001

Territory Sales Manager

Territory Sales Manager (Retail) is responsible for planning and analysing annual sales targets for the OEM vehicles delivered through the various channel partners including dealers/distributors

and to ensure better customer satisfaction through the channel partners.

Qualification Pack Details:

QP NOS Reference	ASC/Q 0101
QP NOS Name	Territory Sales Manager (Retail)
NSQF Level	5

ISCO 08 Unit Group Details:

Code 3322

Title Commercial Sales Representatives

3322.1002

Territory Sales Manager (Used Vehicles)

Territory Sales Manager (Used Vehicles) is responsible for analysing and planning annual sales targets for the company, ensuring valuation for used vehicles and manage operations to achieve targeted sales.

Qualification Pack Details:

QP NOS Reference	ASC/Q 0104
QP NOS Name	Territory Sales Manager (Used Vehicles)
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial
Sales Representatives	

3322.1101

Customer Relationship Manager

Customer Relationship Manager is responsible for assisting in sales support and expansion through customer satisfaction, activities such as enhancing customer experience at the dealership showroom, recording their effectiveness

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and supervising the overall implementation are also part of the job role.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1104
QP NOS Name	Customer
Relationship Manager	
NSQF Level	7

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial
Sales Representatives	

3322.1102

Regional Manager-Customer Care

Regional Manager-Customer Care is responsible for the proper co-ordination of management and development of key accounts within the region, to maintain and ensure customer satisfaction, drive business growth and achieve sales targets.

Qualification Pack Details:

QP NOS Reference	ASC/Q0607
QP NOS Name	Regional
Manager-Customer Care	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1201

Regional Sales Manager (Pre-owned Vehicles)

Regional Sales Manager (Pre-owned Vehicles) is responsible for planning and analysing sales for used/pre-owned vehicles and co-ordinate with sales and service functions to manage and supervise

the used/preowned vehicle sales at the channel partner over a specified area.

Qualification Pack Details:

QP NOS Reference	ASC/Q 0105
QP NOS Name	Regional Sales Manager (Pre-owned Vehicles)
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1202

Sales Lead (Pre-owned Vehicles)

Sales Lead (Pre-owned Vehicles) is responsible for managing sales of pre-owned automobile units at dealership. Analysing and driving sales as per the business target, managing and maintaining backend operations and supervising sales operations are also some of his responsibilities.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1008
QP NOS Name	Sales Lead (Pre-owned Vehicles)
NSQF Level	7

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1203

Sales Consultant (Pre-owned Vehicles)

Sales Consultant (Pre-owned Vehicles) handles potential customer leads, presents value proposition for vehicles and manages vehicle sales for used/pre-owned vehicles. The individual also

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

performs support activities like valuations post checking the overall vehicle condition

Qualification Pack Details:

QP NOS Reference	ASC/Q 1003
QP NOS Name	Sales Consultant (Pre-owned Vehicles)
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1301

Sales Manager

Sales Manager is responsible for supporting sales function of the assigned area at the dealership including planning and analysing annual sales targets given by the OEM to the dealership. Managing personnel and assisting in interoperability of various dealer-OEM functions are also some of the other responsibilities.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1009
QP NOS Name	Sales Manager
NSQF Level	8

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1302

Sales Consultant (Institutional Sales)

Consultant (institutional sales) handles potential customer leads, presents value proposition for vehicles and manages vehicle sales

Qualification Pack Details:

QP NOS Reference	ASC/Q1002
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QP NOS Name	Sales Consultant (Institutional Sales)
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1303

Sales Consultant (Retail)

Sales Consultant (Retail) Level 5 handles potential customer leads, presents value proposition for vehicles and manages vehicle retail sales.

Qualification Pack Details:

QP NOS Reference	ASC/Q1005
QP NOS Name	Sales Consultant (Retail) Level 5
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1304

Sales Consultant

Sales Consultant Level 4 handles potential customer leads, presents value proposition for vehicles and manages vehicle retail sales.

Qualification Pack Details:

QP NOS Reference	ASC/Q1005
QP NOS Name	Sales Consultant Level 4
NSQF Level	4

ISCO 08 Unit Group Details:

Code	322
Title	Commercial Sales Representatives

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3322.1305

Floor Manager

Floor Manager in the jewellery retail store manages a section of sales counters, mostly, of similar product categories, e.g., gold section, or diamond section. The individual is responsible for the sales at the sections and also the performance of human resource working there. Sometimes, the individual may also manage the store alongside the Store Manager.

Qualification Pack Details:

QP NOS Reference	G&J/Q8304
QP NOS Name	Floor Manager
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1306

Store Manager

Store Manager in the jewellery retail store manages the sales and operations of the jewellery retail store. The individual is responsible for the performance of human resource and decides on product management, sales and promotion strategy to be followed at a store level.

Qualification Pack Details:

QP NOS Reference	G&J/Q6201
QP NOS Name	Store Manager
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1400

Other Sales Supervisor

Sales Supervisors, other includes all other Sales Supervisors engaged in wholesale or retail trade to effect, popularise and promote business, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1501

Regional Sales Manager (RSM)

Regional Sales Manager (RSM) is responsible for selling and managing retail and wholesale automobile units through dealer network over a specified area.

Qualification Pack Details:

QP NOS Reference	ASC/Q 0103
QP NOS Name	Regional Sales Manager (RSM)
NSQF Level	7

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.1601

Regional Dealer Development Manager/Network Expansion Manager

Regional Dealer Development Manager is responsible for identifying investors for new dealers in open markets to support the growth of the dealer network by strategically placing dealerships in growing markets.

Qualification Pack Details:

QP NOS Reference	ASC/Q 0301
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Regional Dealer
	Development
	Manager/Network
	Expansion Manager
NSQF Level	6

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.1701

Marketing Manager—Line of Business

Marketing Manager-LOB is responsible for developing and maintaining marketing strategies to meet agreed company objectives and evaluate customer research, market conditions, competitor's data and implement marketing plan alterations as needed.

Qualification Pack Details:

QP NOS Reference ASC/Q 0504
QP NOS Name Marketing Manager – Line of Business
NSQF Level 7

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.1702

Marketing and Social Media Manager

Marketing and Social Media Manager is responsible for designing and formulating branding and marketing activities of dealership in close co-ordination with the sales and marketing of OEM. Developing and executing market plans for the promotion of dealership which includes social media strategy are also part of this job role.

Qualification Pack Details:

QP NOS Reference ASC/Q 1110
QP NOS Name Marketing and Social Media Manager
NSQF Level 7

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.2101

Regional Retail Finance and Insurance Manager

Regional Retail Finance and Insurance Manager is responsible for assisting and supervising in financing process of the automobile units at the overall dealership network of the region.

Qualification Pack Details:

QP NOS Reference ASC/Q 0401
QP NOS Name Regional Retail Finance and Insurance Manager
NSQF Level 6

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.2501

Service Supervisor

Service Supervisor oversees service; repair and maintenance work in the workshop done as per the OEM guidelines and manage the work done by mechanics and other aggregate specialists within the expected time and cost to ensure minimum repeat complaints.

Qualification Pack Details:

QP NOS Reference ASC/Q1412

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name Service Supervisor
NSQF Level 7

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.2502

Service Advisor

Service Advisor manages customer relationships at the workshop promotion. The individual is responsible for understanding the various complaints from the customer and post that identified the service or repair requirements to resolve the customer issues in a timely and cost effective manner as agreed with the customer.

Qualification Pack Details:

QP NOS Reference ASC/Q1602
QP NOS Name Service Advisor
NSQF Level 6

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.2503

Service Office Manager

Service Office Manager is also known as Plant Vehicle Team Manager. A Service Office Manager ensures liaising between plant and on-field services functions for smoother operability and monitors and reviews reporting of product performance.

Qualification Pack Details:

QP NOS Reference ASC/Q0902
QP NOS Name Service Office Manager
NSQF Level 5

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.2504

Service Office Executive

Service Office Executive is responsible for co-ordinating between Field Service and Plants for better customer satisfaction.

Qualification Pack Details:

QP NOS Reference ASC/Q0901
QP NOS Name Service Office Executive
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.4001

Pre Delivery Inspection In Charge

Pre Delivery Inspection In charge is responsible for managing the overall process of functional and visual inspection of the vehicles before delivery to ensure it meets the customers' expectations. The individual is responsible for ensuring stringent checks/inspections (including thorough cleaning and washing) through PDI Supervisor and his team of technicians and washers.

Qualification Pack Details:

QP NOS Reference ASC/Q 1108
QP NOS Name PDI In Charge
NSQF Level 6

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3322.4002

Pre Delivery Inspection Supervisor

Pre Delivery Inspection Supervisor is responsible for functional and visual inspection of the overall vehicle before delivery to ensure that it meets the customers' expectations. The individual is responsible for thorough product check including the oil and lubricant levels and other quality checks as specified by the OEM along with ensuring that the vehicle is cleaned and thoroughly washed before delivery.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1107
QP NOS Name	PDI
Supervisor	
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.5001

Plumbing Products Sales Officer

Plumbing Products Sales Officer is responsible for management of sales of plumbing products manufactured by the Company in within a defined geographic area, province or country.

Qualification Pack Details:

QP NOS Reference	PSC/Q0302
QP NOS Name	Plumbing Products Sales Officer
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.5002

Plumber Aftersales Service

Plumber (After Sales Service) is responsible for maintenance and servicing of the company's products used in plumbing systems of housing, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference	PSC/Q0303
QP NOS Name	Plumber Aftersales Service
NSQF Level	3

ISCO 08 Unit Group Details:

Code	3322
Title	Commercial Sales Representatives

3322.6001

Export Executive

Export Executive plans and co-ordinates the international shipment of goods. During the course of their work, they may negotiate with a variety of people, such as shippers, agents and vendors, and are expected to have excellent customer service skills in dealing with customers/buyers. Their work includes preparation and management of all shipment related documents, interpret export financing methods and terms of payment, handle the Central Excise/Customs Clearance: Regulations, Procedures and Documentation.

Qualification Pack Details:

QP NOS Reference	AMH/Q 1602
QP NOS Name	Export Executive
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3322
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Commercial Sales Representatives

3322.6011 Export Assistant

Export Assistant is responsible for managing all the processes in the export department of a company. This includes preparation and management of all shipment related documents, interpret export financing methods and terms of payment, understand foreign trade practices and procedures, handle the Central Excise/Customs Clearance: Regulations, Procedures and Documentation.

Qualification Pack Details:

QP NOS Reference AMH/Q1601
QP NOS Name Export Assistant
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

3322.9900 Commercial Sales Representatives, Other

Technical and Commercial Sales Representatives, other include all other representatives engaged in selling of various goods on a wholesale basis including installations, equipment and technical products and related services, and provide specialized information as required not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3322
Title Commercial Sales Representatives

Buyers

Buyers buy goods and services for use or resale on behalf of industrial, commercial, government or other establishments and organizations.

3323.0100 Buyer

Buyer buys goods, such as farm produce, used clothing, old newspapers, waste materials, etc. for company use or for resale. Appraises and weighs goods to determine their value. Goes around different localities or areas and purchases goods from sellers according to authorisation or prospect for resale. Sorts purchased goods according to type, quality and value and sells them to business establishments or private individuals. May deal in old machinery parts, waste paper, used cans, worn garments, etc. according to investment, resale value and personal capacity.

ISCO 08 Unit Group Details:

Code 3323
Title Buyers

3323.0101 Merchandiser-Gem and Jewellery

Merchandiser is the person in charge of deciding the jewellery product to be procured for sales in the jewellery store. The individual at work in the jewellery store estimates the demand for the product, plans for jewellery product to be ordered, identify and select the best vendor and place the order. The individual is responsible for executing the strategy of the organization.

Family 3323

Qualification Pack Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Reference	G&J/Q8202
QP NOS Name	Merchandiser
NSQF Level	6

ISCO 08 Unit Group Details:

Code	3323
Title	Buyers

3323.0102

Merchandiser-Apparel

Merchandiser plays a major role right from order booking process to Shipment. The critical role of merchandising department can be divided into three major heads: Order Booking Process, Product Development Process and Pre – Production Process.

Qualification Pack Details:

QP NOS Reference	AMH/Q0901
QP NOS Name	Merchandiser
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3323
Title	Buyers

3323.0200

Purchasing Agent

Purchasing Agent purchases goods at favourable prices on behalf of wholesalers, big consumers, Government authorities, etc. on salary or commission basis. Receives instructions from clients on specification of goods and rates at which goods are to be purchased. Contacts Manufactures Agents or Wholesale Dealers and finds out prevailing rates, quality and quantity of goods available. Acquaints clients with latest information. Purchases goods according to instructions of clients. Takes delivery of goods purchased and makes arrangements for packing and delivering

of goods to clients. Forwards receipts, bills through bank for collection. Attends to all correspondence and inquiries pertaining to business. Keeps close liaison with Procedures, Agents and Wholesale Dealers for knowing market fluctuations and advises clients accordingly. May offer quotations against tenders issued by Government, Local Authorities and other big consumers.

ISCO 08 Unit Group Details:

Code	3323
Title	Buyers

3323.0301

Vendor Development Executive

Vendor Development Executive needs to identify new vendors and evaluate their technical, commercial and capacity capabilities. The individual also needs to work with selected vendors for development of parts constantly improving quality, cost and delivery performance.

Qualification Pack Details:

QP NOS Reference	ASC/Q6201
QP NOS Name	Vendor
	Development
	Executive
	Level 5
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3323
Title	Buyers

3323.0401

Purchase Executive

Purchase Executive is also known as Purchase Officer, the Purchase Executive purchases materials of specified quality in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

timely manner at competitive prices to maintain the optimum inventory. The individual at work collects information about the materials required by different departments, selects the right supplier, purchases materials in a timely manner at the lowest cost and maintains the optimum inventory of materials.

Qualification Pack Details:

QP NOS Reference	ELE/Q7701
QP NOS Name	Purchase Executive
NSQF Level	4

ISCO 08 Unit Group Details:

Code	3323
Title	Buyers

3323.0501

Purchase Executive-Solar

Purchase Executive-Solar is also known as Procurement Executive, the Purchase Executive purchases materials of desired quality in timely manner at competitive prices to maintain the optimum inventory level. The individual at work collects information about the materials required by different departments, selects the right supplier, purchases materials in a timely manner at the lowest cost and maintains the optimum inventory of materials. The individual at work collects information about the materials required by different departments, selects the right supplier, purchases materials in a timely manner at the lowest cost and maintains the optimum inventory of materials.

Qualification Pack Details:

QP NOS Reference	ELE/Q5701
QP NOS Name	Purchase Executive-Solar
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3323
Title	Buyers

3323.0601

Associate-Supply Chain Management

Associate-Supply Chain Management help clients in optimising their supply chain. The key activities they are involved in include generating orders, taking orders, collecting unpaid bills, reviewing customer/vendor payment and trends, performing dispatch follow-up, managing suppliers, managing inventories and providing procurement/sourcing support.

Qualification Pack Details:

QP NOS Reference	SSC/Q 3001
QP NOS Name	Associate-SCM
NSQF Level	7

ISCO 08 Unit Group Details:

Code	3323
Title	Buyers

3323.0602

Supply Chain Field Assistant

Supply Chain Field Assistant: Supply Chain Field Assistant arranges for flow of agricultural produce from farmer to buyer. The person manages the flow of goods and ensures continuity of supply by identifying the needs right from procurement, packing and transporting the goods to ensuring all requisites carried out for fresh quality of stock maintained till it reaches the buyer.

Qualification Pack Details:

QP NOS Reference	AGR/Q7801
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name Supply Chain Field
NSQF Level Assistant 4

Occupations in this Group are classified into the following Families:

ISCO 08 Unit Group Details:

Code 3323
Title Buyers

3323.9900

Buyers, Other

Buyers, other include all other buyers who buy goods and services on behalf of industrial, commercial or other enterprises not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3323
Title Buyers

Family 3324

Trade Brokers

Trade brokers buy and sell commodities and shipping services, usually in bulk, on behalf of their own company or for customers on a commission basis.

Group 333

Business Service Agents

Business service agents establish contacts to sell various business services such as advertising space in the media, carry out customs clearance activities ensuring that necessary documents are in order, match jobseekers with vacancies, find workers for employers, arrange contracts for the performance of athletes, entertainers and artists, as well as for the publication of books, the production of plays, or the recording, performing and sale of music, plan and organize conferences and similar events.

3331	Clearing and Forwarding Agents
3332	Conference and Event Planners
3333	Employment Agents and Contractors
3334	Real Estate Agents and Property Managers
3339	Business Service Agents, Not Elsewhere Classified

Family 3331 Clearing and Forwarding Agents

Clearing and forwarding agents carry out customs clearing procedures and ensure that insurance, export/import licences and other formalities are in order.

Family 3332

Conference and Event Planners

Conference and event planners organize and co-ordinate services for conferences, events, functions, banquets and seminars.

Family 3333

Employment Agents and Contractors

Employment agents and contractors match jobseekers with vacancies, find workers for employers and contract labour for particular projects at the request of enterprises and other organizations including government, institutions, or find places for jobseekers for a commission.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family 3334

Real Estate Agents and Property Managers

Real Estate Agents and Property Managers arrange the sale, purchase, rental and lease of real property, usually on behalf of clients and on a commission basis.

3334.0100

Property Dealer

Property Dealer; Estate Broker; advises clients on purchase, sale and lease of real estate and assists them in settlement of deal on commission basis. Contacts intending sellers of property, and obtains details of property to be sold or purchased. Estimates value of property, finding out prevailing rates in locality. Consults engineers, municipal authorities, Govt. authorities, etc. for getting further details regarding title, mortgage taxes, etc. of property. Scrutinises list of sellers and prospective purchasers maintained by him, contacts them to find out their requirements and to place before them proposals regarding different estates available for sale or lease. Takes buyer to sites and shows him estates available for sale. Negotiates between seller and buyer and helps them to arrive at agreement. Collects earnest money from purchasers and hands it over to seller thereafter. Approaches Legal Adviser with parties concerned, draws out terms of contract and finalises deal. Charges commission from his clients when deal is finalised. Attends to correspondence pertaining to his business and advertises property for purchase, sale or lease.

Code 3334

Title Real Estate Agents and Property Managers

3334.0200

House Agent

House Agent; Property Agent assists house owners and tenants in renting out and securing suitable accommodation on commission basis. Contacts house-owners of vacant houses, flats, shops etc. to obtain details regarding accommodation available, rent, etc. Maintains list of accommodation available and of prospective tenants. Publicises accommodation available for lease or rent. Contacts prospective tenants and gives them information about available accommodation along with rent demanded by owner. Conducts client to site to show him available accommodation. Negotiates between house-owner and prospective tenant and helps them in arriving at agreement. Charges commission according to prevailing rates. May collect rent and manage property on behalf of client, by charging nominal fee on monthly basis.

ISCO 08 Unit Group Details:

Code 3334

Title Real Estate Agents and Property Managers

3334.9900

Estate Agents, Other

Estate Agents, Other include agents who arrange the sale, purchase, rental and lease of real property, usually on behalf of clients and on a commission basis not elsewhere classified.

ISCO 08 Unit Group Details:

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 3334
Title Real Estate Agents and Property Managers

Family 3339

Business Service Agents, Not Elsewhere Classified

This family covers business services agents not classified elsewhere. For instance, the group includes those who establish business contacts, sell business services such as advertising space in the media, arrange contracts for performances of athletes, entertainers and artists, for the publication of books, the production of plays, or the recording, performance and sale of music and who sell property and goods by auction.

3339.0200 Brand Manager

Brand Manager liaises with principals to negotiate product pricing and maintain relationships. Provides inputs with regards to product pricing and positioning through competitor analysis and market surveys/benchmarking. Meticulously plans and executes marketing business plans, based on market trends to promote presence in the global market. Directs the sales team and designs innovative schemes to motivate them. Recruits and develops staff.

ISCO 08 Unit Group Details:

Code 3339
Title Business Service Agents Not Elsewhere Classified

3339.0300

Auctioneer

Auctioneer organizes auction of movable and immovable property and sells it to highest bidder. Receives or makes arrangements to bring articles to be auctioned at his place or conducts auction at site. Makes inventories of items of property to be sold giving their short description and allotting numbers to each item of property. Fixes date and time of auction in consultation with seller. Publicises auction through hand bills, posters, beat of drums, advertisements in newspapers, personal talks, etc. Displays property in shop or at site. Distributes copies of inventory to intending purchasers and describes articles to persons gathered and invites persons to quote prices. Supervises sale on day of auction. Sells property to highest bidder and hands over property on receipt of full payment. Keeps account of money realised and remits it to seller after deducting his commission. Attends to all correspondence relating to his business. May also act as Crier during auction-sale. May be appointed as AUCTIONEER to Govt., High Court; Municipality, etc.

ISCO 08 Unit Group Details:

Code 3339
Title Business Service Agents Not Elsewhere Classified

3339.0400 Crier, Auction

Crier, Auction stimulates competitive bidding at auction sale by inviting bids from buyers and closes sale to highest bidder at instances of Auctioneer. Stands on raised platform or sits on high chair with wooden mallet in hand. Describes briefly article to be auctioned and invites

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

bids from buyers assembled. Extols article on sale and calls loudly bids offered to stimulate competitive bidding. Repeats highest and final bid three times and closes sale to highest bidder by hanging mallet on desk on advice of Auctioneer. Writes against each item auctioned, name of highest bidder and price offered. May withdraw items of property from sale if reserved-price is not forthcoming, under direction of Auctioneer. May assist Auctioneer in discharge of his duties when called upon to do so.

ISCO 08 Unit Group Details:

Code 3339

Title Business Service Agents Not Elsewhere Classified

3339.0500

Conductor, Auction Sale

Conductor, Auction-Sale prepares list of property to be auctioned and gives description or demonstrates working to buyers assembled to stimulate competitive bidding. Arranges property in room, hall or at site, makes inventory of property giving short description and allots number to each item of property. Gets copies of inventory prepared and distributes them amongst intending buyers. Reads description of property and demonstrates working etc. if required. Hands over keys and other accessories to buyers. May work as Crier Auction.

ISCO 08 Unit Group Details:

Code 3339

Title Business Service Agents Not Elsewhere Classified

3339.0600

Call Centre Executive

Call Centre Executives answer in person or on the phone, enquiries from customers and investigates complaints regarding goods, services and policies; arranges for funds, exchange and credit for returned merchandise; receives account payments; and receives credit and employment applications. They take customer orders for goods or services; promote goods or services; responds to enquiries and emergencies; investigates complaints and updates accounts. They explain the type and cost of services enquired by the customer, initiates billing and process claim payments. Provides information to customers and the public concerning goods, services, schedules, rates, regulations and policies. May also be called Customer Care Executive.

ISCO 08 Unit Group Details:

Code 3339

Title Business Service Agents Not Elsewhere Classified

Group 334

Administrative and Specialized Secretaries

Administrative and specialized secretaries provide organizational, communication and documentation support services, utilizing specialized knowledge of the business activity of the organization in which they are employed. They take supervisory responsibility for office Clerks in the organization.

Occupations in this Group are classified into the following Families:

3341 Office Supervisors
3342 Legal Secretaries
3343 Administrative and Executive Secretaries

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3344 Medical Secretaries

Family 3341 Office Supervisors

Office supervisors supervise and co-ordinate the activities of workers in division 3, Clerical support workers.

3341.0200 Overseer, Postmen

Overseer, Postmen, Head Postman assigns and supervises work of Postmen. Ensures punctuality of staff and delivery of mail promptly and to correct addresses. Investigates complaints against Postmen, reports cases of fraud and misappropriation to higher authorities.

ISCO 08 Unit Group Details:

Code 3341
Title Office

Supervisors

3341.0400 Supervisor, Telephone

Supervisor, Telephone; Engineering Supervisor Phone (Traffic) supervises performance of Telephone Operators, Monitors, Telephone and ensure quick disposal of traffic and proper maintenance of all telephone equipment. Checks flow of traffic and quick disposal of transit, inward and outward tickets and maintains discipline in switch-room. Checks Interruption Register to determine delay in traffic, dislocation of lines and period of dislocation. Supervises installation and maintenance of telephone exchange equipment and controls technical staff such as Telephone Operators, Monitors, Telephone. May be designated as Engineering Supervisor, Trunks if engaged in Trunk Telephone exchange. May settle traffic disputes.

ISCO 08 Unit Group Details:

Code 3341
Title Office Supervisors

3341.0500 Monitor, Telephone

Monitor, Telephone supervises and ensures efficient operation of allotted section of telephone exchange. Allocates duties to Telephone Operators within section. Checks traffic on lines, periodically. Times and signs transit inward and outward tickets. Assists Telephone Operators in putting through built-up calls, checks and verifies defective traffic and records dislocations in Interruption Register. Informs appropriate authority for detection of fault and its rectification inside exchange. Receives subscribers' complaints and takes remedial action. Is responsible for safe custody of call tickets, their disposal and rendition of statement.

ISCO 08 Unit Group Details:

Code 3341
Title Office Supervisors

3341.0600 Supervisor, Wireless

Supervisor, Wireless supervises work and progress of Wireless Operators and ensures efficient operation of wireless station. Controls and co-ordinates utilization of personnel, and checks efficiency in receiving and transmitting messages to minimise delays. Test-checks wireless equipment for location and removal of defects and supervises maintenance and repairs of equipment. Records details of breakdown, and maintains liaison with operating agencies, to remove causes of complaints.

ISCO 08 Unit Group Details:

Code	3341
Title	Office Supervisors

3341.0700

Headlight Keeper

Head Light-Keeper controls and supervises working of light-houses under his charge and arranges for supply of provisions, stores, etc. to units as required. Prepares and maintains duty-roster of Light-Keepers and assigns work accordingly. Checks proper functioning of light-houses daily and supplies meteorological data to controlling authorities. Provides required stores and equipment for replacement. Ensures proper maintenance of all equipment and apparatus and sees that lens, lantern panes, etc. are cleaned daily by Light-Keeper. Keeps watch on movement of ship in adjacent areas. May perform duties of Light-Keeper, Light-houses. May provide necessary assistance to vessels in distress.

ISCO 08 Unit Group Details:

Code	3341
Title	Office Supervisors

3341.0800

Section Officer

Section Officers; Office Superintendent; Head Clerk; Section-in-charge; Head Assistant; Supervisor(clerical) organizes and controls all clerical work within establishment or office thereof. Allocates duties to staff under him, co-ordinates and supervises their work ensuring efficiency, discipline and observance of prescribed procedure. Studies all files, draft letters, notes, etc. put up by clerk. Disposes routine and intermediary matter.

Deals with important files and complicated cases personally and puts up notes, reports, drafts etc. to superior for orders. Ensures that prescribed procedure is followed by staff in dealing with cases. Keeps important, secret and confidential records in his personal custody. Supervises preparation of budget estimate, statement of accounts, financial bills, payment of wages, salaries etc. to staff and maintenance of various accounts and registers.

ISCO 08 Unit Group Details:

Code	3341
Title	Office Supervisors

3341.0900

Inspectors and Supervisors, Other (Clerical)

Inspectors and Supervisors, other (Clerical) perform variety of supervisory and executive tasks in any branch of public or private sector department such as revenue, income-tax, education, labour, sales, housing etc. and ensure satisfactory working and execution of policy decisions. Instruct staff members and others concerned on procedural matters, records and registers to be maintained, policy decisions, connected rules and regulation, etc. and guide them as necessary. Visit related offices, institutions, shops, establishments, etc. check records and connected papers; examine working conditions; reconcile labour disputes and perform other supervisory and executive tasks according to nature of post held. Ensure satisfactory working and execution of policy decisions, public dealing, implementation of connected rules and regulations and take prescribed remedial or legal steps to remove mistakes or defaults noticed. Submit periodical reports and returns to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

appropriate authorities. Is designated according to work performed or post held, such as: CIRCLE INSPECTOR. REVENUE INSPECTOR. INCOME-TAX INSPECTOR. CIVIL SUPPLIES INSPECTOR. SHOP INSPECTOR. SALES TAX INSPECTOR. LABOUR INSPECTOR. RATIONING INSPECTOR. INSPECTOR OF CO-OPERATIVE SOCIETIES. MOTOR VEHICLE INSPECTOR. ENFORCEMENT INSPECTOR. FOREST RANGER. HOUSING INSPECTOR, etc.

ISCO 08 Unit Group Details:

Code	3341
Title	Office Supervisors

3341.1000

Office Assistant

Office Assistant; Senior Clerk prepares notes, drafts memoranda and summaries quoting precedents, references, rules, etc. Draws out reports, statements and attends to correspondence. Assists superior in disposal of complicated or important cases. Makes entries in register regarding nature and number of papers received by him for disposal. Studies letters and correspondence and links connected papers on subject. Prepares brief notes, reports or draft replies quoting precedent, rules, regulations and existing orders, if any, puts them to superior for consideration. Keeps watch over movement of files. Supervises work of subordinates and assists them in disposal of case correctly and expeditiously. Maintains prescribed registers. May do his own typing. May handle cash and maintain accounts. May prepare budget, bills and other statements.

ISCO 08 Unit Group Details:

Code	3341
Title	Office Supervisors

3341.1100

Briefing Assistant

Briefing Assistant; Operation Assistant (Air Service) performs clerical duties incidental to operation of aircraft through airport. Makes out clearance papers to authorize cross country flights and submits them to authority for approval. Prints weather information on clearance and weather report forms using duplicating machine. Prepares despatch papers including such items as time of departure and arrival, names of crew members and cargo weighed. Posts progress of flights, using chalk and black board, or special indicator board and keeps permanent flight record. Prepares messages to be sent by radio and teletype to other fields concerning flights. May arrange for substitutes for crew members.

ISCO 08 Unit Group Details:

Code	3341
Title	Office Supervisors

3341.1200

Sub-Post Master

Sub-Post Master performs various functions involved in provision of postal facilities to public in sub-office in rural and urban areas. Sells postal stationery, collects money-orders, parcels, letters, etc. and arranges for delivery of mail, money-orders and other postal articles to local addresses. Maintains records of all cash transactions with public, sale proceeds of stamps etc. May operate telegraphic signal instruments.

ISCO 08 Unit Group Details:

Code	3341
Title	Office Supervisors

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3341.9900

Office Supervisors, Other

Administrative Associate Professionals, other include associate professionals involved in administrative activities not elsewhere classified.

health care delivery procedures, assist health professionals and other workers by performing a variety of communication, documentation, administrative and internal co-ordination functions, to support health workers in medical facilities and other health-care related organizations.

ISCO 08 Unit Group Details:

Code	3341
Title	Office Supervisors

Family 3342

Legal Secretaries

Legal secretaries apply specialized knowledge of legal terminology and procedures in providing support to legal professionals with communication, documentation and internal managerial co-ordination activities, in law offices, legal departments of large firms and governments.

Group 335

Government Regulatory Associate Professionals

Regulatory government associate professionals administer, enforce or apply relevant government rules and regulations relating to national borders, taxes, social benefits, and issue or examine applications for licences or authorizations in connection with travel, exports and imports of goods, establishment of businesses, erection of buildings and other activities subject to government regulations.

Family 3343

Administrative and Executive Secretaries

Administrative and Executive Secretaries perform liaison, co-ordination and organizational tasks in support of managers and professionals and/or prepare correspondence, reports and records of proceedings and other specialized documentation.

Occupations in this Group are classified into the following Families:

3351	Customs and Border Inspectors
3352	Govt. Tax and Excise Officials
3353	Government Social Benefits Officials
3354	Government Licensing Officials
3355	Police Inspectors and Detectives
3359	Government Regulatory Associate Professionals, Not Elsewhere Classified

Family 3344

Medical Secretaries

Medical secretaries, using specialized knowledge of medical terminology and

Family 3351

Customs and Border Inspectors

Customs and border inspectors check persons and vehicles crossing national

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

borders to administer and enforce relevant government rules and regulations.

3351.0100 Inspector, Customs

Inspector Customs; Preventive Officer, Customs; Examiner Customs examines Cargo and baggage of passengers to detect and prevent smuggling of goods in ports, aerodromes and across national borders. Obtains passengers' declaration regarding import and export of articles and examines their baggage and carries out personal search of suspects, passengers, issues clearance of baggage of passengers as per customs regulations. Keeps control over officers and sepoys and ensures proper guarding of vital points in Docks and Bunders. Gathers information and intelligence reports about smuggling, takes requiring action and ensures that defaulters have been brought to book. May carry out surprise checks in vessels of merchant navy, country crafts, aircrafts, shops, etc.

ISCO 08 Unit Group Details:

Code 3351
Title Customs and Border Inspectors

3351.0200 Supervisor, Customs

Supervisor, Customs supervises search of passengers and their baggage at ports, aerodromes and across national borders for detecting smuggling of goods. Assists Examiner Customs in examining Cargo and baggage of passengers and arranges for deposit of unclaimed and uncleared goods of customs duty in go-downs for assessment of duty by Appraiser Customs. Ensures that all vital points of restricted

area are guarded to prevent passage of dutiable goods without clearance.

ISCO 08 Unit Group Details:

Code 3351
Title Customs and Border Inspectors

3351.0300 Searcher

Searcher, Customs, searches persons or passengers at airports and bunders coming from or leaving to foreign countries to prevent smuggling of any contraband, prohibited and restricted articles. Interrogates passengers about the possession of any restricted goods and searches persons in doubtful cases. Undertakes search of personal luggage in possession, records detailed searches in register and prepares other clerical duties when required.

ISCO 08 Unit Group Details:

Code 3351
Title Customs and Border Inspectors

3351.9900 Customs and Border Inspectors, Other

Customs and Border Inspectors, other include all other inspectors involved in checking persons and vehicles crossing national borders to enforce relevant government rules and regulations not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3351
Title Customs and Border Inspectors

Family 3352 Govt. Tax and Excise Officials

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Government tax and excise officials examine tax returns, bills of sale and other documents to determine the type and amount of taxes, duties and other types of fees to be paid by individuals or businesses, referring exceptional or important cases to accountants, senior government officials or Managers.

3352.0100 Inspector, Excise

Inspector Excise detects, prevents unauthorised production, smuggling, sale and use of dutiable goods and assesses excise duty on them. Surveys plant-producing dutiable goods for verification at various stages of manufacture, visits store-room for verification of final products with manufacturers account. Checks weight or counts number of packages of excisable commodities and verifies daily production with factory accounts relating to raw materials and final products. Inspects excisable commodities, assesses excise duty and allows clearance of commodities after adjusting amount in accounts. Maintains records regarding production of commodities, levy of excise duties, permits for clearance of commodities from factories, etc., as required.

ISCO 08 Unit Group Details:

Code 3352
Title Govt. Tax and Excise Officials

3352.9900 Govt. Tax and Excise Officials, Other

Government Tax and Excise Officials, other include associate professionals engaged in examining tax returns, bills of sale and other documents to determine

the type and amount of taxes, duties and other types of fees to be paid by individuals or businesses not classified elsewhere.

ISCO 08 Unit Group Details:

Code 3352
Title Govt. Tax and Excise Officials

Family 3353 Government Social Benefits Officials

Government social benefits officials examine applications for government, financial or service programmes to determine eligibility and amount of benefit or appropriate services, referring exceptional or important cases to senior government officials or Managers.

3353.0100 Village Level Worker

Village Level Worker, Gram Sevak guides and assists villagers to lead better and fuller life. Visits various villages in his area and contacts people. Discusses their problems and assists in solving them. Advises farmers in better farming, benefits of fertiliser, pesticides, etc. Reports complaints and needs of farmers and other villagers to respective authorities for necessary action. Advises people on personal and public hygiene and sanitation. May arrange adult literacy programmes. Is designated as GRAM SEVIKA, if female worker, and engaged in training and assisting women in child care, house crafts, sanitation, etc.

ISCO 08 Unit Group Details:

Code 3353
Title Government Social Benefits
Officials

3353.0200

Patroller, Women

Patroller, (Women); Care Worker (Women) assists girls in need of shelter by getting them admitted in care institutions and acts as liaison between care institutions and public. Renders advice to girls and women from going astray. Meets fallen women and arranges shelter for them in care institutions. Acts as liaison between care institutions and public to give information as required. May assist in rehabilitation of fallen women.

ISCO 08 Unit Group Details:

Code 3353

Title Government Social Benefits Officials

passports, determine eligibility of applications for issuing licences or passports, and identify specific conditions or restrictions to be attached to licences issued, referring exceptional or important cases to Senior government officials or Managers.

Family 3355

Police Inspectors and Detectives

Police inspectors and detectives investigate facts and circumstances relating to crimes committed in order to identify suspected offenders and obtain information not readily available or apparent concerning establishments or the circumstances and behaviour of persons, mostly in order to prevent crimes.

3353.9900

Government Social Benefits Officials, Other

Government Social Benefit Officials, other include associate professionals who examine applications for benefits, in cash or kind, to determine eligibility and amount of benefit, not classified elsewhere.

ISCO 08 Unit Group Details:

Code 3353

Title Government Social Benefits Officials

3355.0100

Inspector, Police

Inspector, Police maintains law and order, protects property and persons from hazard and unlawful acts and apprehends violation of the law. Inspects periodically police stations under his charge. Studies reports and other records and informs higher authorities about inadequacies such as delays or improper actions. Investigates serious crimes such as dacoity, murder, conspiracy and maintains crimes register and acts to minimize crimes by rounding up bad character or keeping watch over them. Keeps Superintendent of Police informed of important occurrences within his jurisdiction by regular rendition of reports. May conduct cases against accused in court. May specialize in security arrangements, traffic control, intelligence, enforcement and anticorruption work, and be designated as

Family 3354

Government Licensing Officials

Government licensing officials examine applications for licences to export or import goods, set up businesses, build houses or other structures, or to obtain

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

INSPECTOR POLICE(criminal investigation department); TRAFFIC INSPECTOR, POLICE. May be known as RESERVE INSPECTOR OF POLICE if in charge of armed and ordinary reserves, magazine and other stores, training of recruits, drill, discipline and use of arms, arranging of orderly rooms, etc.

ISCO 08 Unit Group Details:

Code 3355

Title Police Inspectors and Detectives

3355.0200

Sub-Inspector, Police

Sub-Inspector, Police; Station House Officer maintains law and order in his jurisdiction, investigates crimes, arrests criminals, protects persons and property from hazards of unlawful acts and controls staff working in police station. Allots duties to Police Constables and other staff working under him. Familiarises with the people in the area and gets acquainted with local problems. Studies records of notorious and bad characters and keeps watch over their activities. Receives intelligence reports and other information through official and private sources and takes action or disseminates them to appropriate authorities for instructions. Supervises Patrolling and checks duties of Sentries. Takes action to prevent crime wherever possible. Examines first information reports and complaints lodged in police station, investigates situation and takes appropriate action such as issuing warnings or making arrests. Investigates crimes and submits report to higher authorities. Supplies relevant information to Public Prosecutor in conduct of criminal cases. Inspects kits of Police Constables and drills his subordinates on fixed days. Keeps control over police out-posts under his charge and

maintains law and order in public functions. May present criminal cases in court. May be in charge of traffic control and perform other duties except crime investigation and he designated as SERGEANT, POLICE.

ISCO 08 Unit Group Details:

Code 3355

Title Police Inspectors and Detectives

3355.0300

Detective

Detective carries out investigations to prevent and solve criminal cases. Investigates known or suspected criminals or facts of particular case to detect planned criminal activity or clues. Frequent known haunts of criminals and familiarizes themselves with criminals to determine their habits and other personal information. Records such information and reports it to concerned officer. Reports any occurrence or information regarding planned or committed crime that comes to his attention. Investigates circumstances of crime and questions witnesses when assigned to specific case. Examines scene of crime to obtain clues and gather evidence. Interrogates suspected persons to establish guilt or innocence. Reports progress of investigation. Arrests or assists in arrest of criminals or suspects. Prepares assigned cases for court, according to formalized procedure. May investigate and find out missing persons or articles for restoration to legal owner. May be designated according to type and nature of crime investigated.

ISCO 08 Unit Group Details:

Code 3355

Title Police Inspectors and Detectives

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3355.9900

Police Inspectors and Detectives, Other

Police Inspectors and Detectives, other include associate professionals who investigate facts and circumstances relating to crimes committed and obtain information in order to prevent crime not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3355

Title Police Inspectors and Detectives

Family 3359

Government Regulatory Associate Professionals, Not Elsewhere Classified

This unit group covers government regulatory associate professionals not classified elsewhere in Division 3, Technicians and associate professionals. For instance, the group includes agricultural, fisheries, forestry, prices, wages and weights and measures inspectors.

Sub Division 34

Legal, Social, Cultural and Related Associate Professionals

Legal, social, cultural and related associate professionals perform technical tasks connected with the practical application of knowledge relating to legal services, social work, culture, food preparation, sport and religion.

Tasks performed in this sub-major group usually include: providing technical and practical services and support functions in legal processes and investigations, social

and community assistance programmes, and religious and cultural activities; participating and adjudicating in sporting events; developing and delivering sports coaching, fitness and recreational programmes; combining creative and technical skills in a variety of artistic, cultural and culinary activities; creating dishes and menus and overseeing the preparation of meals

Occupations in this Sub Division are classified into the following Groups:

341 Legal, Social and Religious Associate Professionals

342 Sports and Fitness Workers

Group 341

Legal, Social and Religious Associate Professionals

Legal, social and religious associate professionals provide technical and practical services and support functions in legal processes and investigations, social and community assistance programmes and religious activities.

Occupations in this Group are classified into the following Families:

3411 Legal and Related Associate Professionals

3412 Social Work Associate Professionals

3413 Religious Associate Professionals

Family 3411

Legal and Related Associate Professionals

Legal and related associate professionals perform support functions in courts of law or in law offices, provide services related

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

to such legal matters as insurance contracts, the transferring of property and the granting of loans and other financial transactions or conduct investigations for clients.

3411.0100 Legal Assistant

Legal Assistant; Law Assistant assists Solicitors and Advocate in their work by collecting documents from clients, or organizations in which employed, studying details of cases, preparing briefs, supplying relevant decisions or similar cases and laws connected, etc. in support of pleadings. Interviews clients, discusses case history and collects documents pertaining to case, if any. Examines witnesses and discusses case with senior (Solicitor or advocate). Studies relevant case laws, prepares briefs for pleading as instructed and files case in court. Assists Advocate in preparing witnesses for evidence and cross examination, and in conducting case. Accompanies Advocate to courts and performs other legal duties as instructed. May visit spots occurrence or dispute to ascertain additional facts.

ISCO 08 Unit Group Details:

Code 3411
Title Legal and Related Associate Professionals

3411.0200 Shirestedar

Shirestedar; Reader; Bench Clerk; Judicial Clerk; Peshkar renders clerical assistance to Judge or Magistrate in conducting judicial proceedings in court. Receives records of cases, paper-books, etc. from ministerial office (clerical section where records are kept) of court. Arranges daily

board (list of cases to be heard) in consultation with Judge or Magistrate. Attends Court, calls out case names of parties and relevant details and hands over necessary papers to Judge or Magistrate. Marks documents and retains custody of items submitted as exhibits by parties on orders of Judge or Magistrate. Maintains order in court room and takes notes of proceedings. Records orders passed by Judge or Magistrate and hands them over to office for drafting decrees and orders. Maintains statistical summary of work performed by court and answers correspondence pertaining to case allotted to Court. May draft decree and furnish certified copies thereof to parties. May arrange interviews of parties with Judge in his chamber. May administer oath to witnesses. May act as Interpreter, when Interpreter is not available.

ISCO 08 Unit Group Details:

Code 3411
Title Legal and Related Associate Professionals

3411.0300 Petition Writer

Petition Writer writes petitions for public. Sits in premises of courts and other offices with permission of authorities. Writes petitions for public and types them. Collects charges from customers. May also sell stamps if in possession of proper license.

ISCO 08 Unit Group Details:

Code 3411
Title Legal and Related Associate Professionals

3411.9900

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Legal and Related Associate Professionals, Other

Legal and Related Business Associate Professionals, other include associate professionals engaged in Legal and related business activities not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3411

Title Legal and Related Associate Professionals

Family 3412 Social Work Associate Professionals

Social work associate professionals administer and implement social assistance programmes and community services and assist clients to deal with personal and social problems.

3412.0100 Blood Donor Unit Assistant

Blood-Donor-Unit Assistant performs any combination of following supportive duties at blood-collection unit of blood bank. Schedules appointments over telephone for blood donors. Interviews blood donors and records identifying and blood-credit information on registration form. Notifies nurse if donor appears to be underweight or too old to give blood. Takes blood donor's temperature and pulse to assist during medical interview. Unpacks, labels, and stamps date on empty blood packs. Posts donor names, blood-control numbers, and donor-group numbers to unit log sheet. Seals filled blood packs and sample tubes, using hand tools and heat-sealing machine. Serves refreshments, such as coffee, juice, cookies, and jelly beans, to donors to

prevent or relieve adverse reactions and to begin replenishment of blood fluids.

ISCO 08 Unit Group Details:

Code 3412

Title Social Work Associate Professionals

3412.0200

Equal Opportunity Officer

Equal Opportunity Officers monitor and evaluate compliance with equal opportunity laws, guidelines, and policies to ensure that employment practices and contracting arrangements give equal opportunity without regard to race, religion, colour, national origin, sex, age, or disability. Conduct surveys and evaluate findings in order to determine if systematic discrimination exists. Counsel newly hired members of minority and disadvantaged groups, informing them about details of civil rights laws. Interpret civil rights laws and equal opportunity regulations for individuals and employers. Investigate employment practices and alleged violations of laws, in order to document and correct discriminatory factors. Meet with persons involved in equal opportunity complaints in order to verify case information, and to arbitrate and settle disputes. Prepare reports of selection, survey, and other statistics, and recommendations for corrective action. Provide information, technical assistance, and training to supervisors, managers, and employees on topics such as employee supervision, hiring, grievance procedures, and staff development. Review company contracts to determine actions required to meet governmental equal opportunity provisions. Study equal opportunity complaints in order to clarify issues.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 3412
Title Social Work Associate Professionals

3412.9900

Social Work Associate Professionals

Social Worker Associate Professionals include associate professionals who provide guidance to clients in social and related matters to enable them to find and use resources to overcome difficulties and achieve particular goals not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3412
Title Social Work Associate Professionals

supervision for various forms of exercise and other recreational activities.

Occupations in this Group are classified into the following Families:

3421	Athletes and Sports Players
3422	Sports Coaches, Instructors and Officials
3423	Fitness and Recreation Instructors, and Programme Leaders

Family 3421

Athletes and Sports Players

Athletes and sport players participate in competitive sporting events. They train and compete, either individually or as part of a team, in their chosen sport.

Family 3413

Religious Associate Professionals

Religious associate professionals provide support to ministers of religion or to a religious community, undertake religious works, preach and propagate the teachings of a particular religion and endeavour to improve well-being through the power of faith and spiritual advice.

Group 342

Sports and Fitness Workers

Sports and Fitness Workers prepare for and compete in sporting events for financial gain, train amateur and professional sportsmen and women to enhance performance, promote participation and standards in sport, organize and officiate sporting events, and provide instruction, training and

3421.0100

Professional

Sportsman/Professional, Athlete

Professional Sportsman takes part in public exhibitions or competitions of games or sports for gain. Discusses details of engagement with clubs, institutions etc. for participation in exhibition games or sports. Plays games or participates in sports according to established rules, exhibiting his talent, prowess, skill, style, etc. Visits different centres and places to participate in games according to engagement. May coach players in particular games for consideration. May sign contracts for engagement. May be designated as Cricket Professional; Football Professional; Tennis Professional etc. according to games in which proficient and engaged.

ISCO 08 Unit Group Details:

Code 3421
Title Athletes and Sports Players

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3421.0200

Jockey

Jockey rides racehorse at racetrack for consideration, observing rules. Makes daily visits to race-track during racing season to ride race horses on track at different speeds to keep horses in fit condition. Observes horse's performances during run and discusses with Race Horse Trainer horse's behaviour for further training. Receives riding instructions from Trainer on racing day regarding race events, names and positions of horses and other particulars and hints. Wears prescribed coloured apparel, number etc., according to turf rules for race event. Mounts horse and takes it round paddock for punters' view. Rides and positions horse at prescribed place on starting gate on track at scheduled time and runs horse on start signal at top speed along track to winning post according to track rules. Dismounts from horse after event and removes saddle from horse and goes to weighing room for weighing if required. Takes exercises to keep body fit and maintain correct weight. May undertake stable management.

ISCO 08 Unit Group Details:

Code 3421
Title Athletes and Sports Players

Family 3422

Sports Coaches, Instructors and Officials

Sports coaches, instructors and officials work with amateur and professional sportspersons to enhance performance, encourage greater participation in sport,

and organize and officiate in sporting events according to established rules.

3422.0100

Athletic Coach

Athletic Coach trains or coaches athletes in technique, and rules of competitive track and field events such as sprints, shot-put, javelin throw, pole-vault etc. Prepares schedule of field and track events in which coaching is desired and explains and instructs on fundamental skills and rules of event to individual or groups of athletes under training. Demonstrates techniques of play by personal example; Pays specific attention to health building and improving stamina by recommending and demonstrating various types of exercises, drills and assists them to acquire proficiency. May accompany teams going out for competition.

ISCO 08 Unit Group Details:

Code 3422
Title Sports Coaches, Instructors and Officials

3422.0201

Sports Coach

Sports Coach coaches potential sportsmen or player with talent and promise in fundamentals, techniques and rules of competitive sports or games. Selects potential sportsmen or players of talent and instructs them in fundamentals and rules of game and teaches them planning and movements. Demonstrates techniques of play by action and actual playing. Drills in fundamentals until players become familiar with all phases of a game. Watches players in action and offers helpful criticism and corrective

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

methods. Suggests or recommends various physical exercises to keep body fit and supple. Accompanies team on tours, maintains discipline and team spirit among players. May act as Umpire or Referee in matches or in tournaments. May settle disputes of contending teams in play. May be designated according to the sport coached, such as Tennis Coach, Football Coach, Hockey Coach, Cricket Coach etc.

Qualification Pack Details:

QP NOS Reference	SPF/Q1101
QP NOS Name	Sports Coach
NSQF Level	7

ISCO 08 Unit Group Details:

Code	3422
Title	Sports Coaches, Instructors and Officials

3422.0300

Riding Instructor

Riding Instructor instructs and teaches pupil in technique of horsemanship, equitation, showing how to mount horse, how to post, and how to control horses, actions in walking, galloping, trotting, cantering, and jumping. Takes pupil to track and provides horse as per requirements and explains various riding equipment and their uses. Demonstrates positions and postures of body and limbs for mounting horses positioning of saddle. Controlling horses' actions in walking, trotting and galloping etc. Familiarises pupils in fundamentals of horsemanship by regular practice until proficiency is acquired. Gives instructions in stable management such as grooming and feeding of horses, maintenance of cleanliness of stable and keeping riding kit in good condition. May give coaching in tent pegging and playing polo. May give

instructions in horse keeping on scientific lines.

ISCO 08 Unit Group Details:

Code	3422
Title	Sports Coaches, Instructors and Officials

3422.0400

Umpire

Umpire; Referee (Sports) conducts games and sports in accordance to rules and pronounces instantaneous decisions. Inspects playground or area before commencement of game to ensure that lines and other markings in the field are made properly and according to rules of the game. Examines sports material such as balls, rackets, bats, hockey sticks to be used in the game for proper specifications. Calls contestants or captains of contesting teams in field and tosses or supervises toss for choice of field side or team to start game. Observes movement and position of ball and players for infringement of game rules, and awards scoring points or imposes penalties, by giving hand signals, calling loud or blowing whistle. Warns and cautions erring players for deliberate breach of game-rules. Pronounces instantaneous judgement on appeal by either party of contestant during play. Stops play at scheduled hour for close of game or earlier in emergency. May suspend any player from match or game for gross misconduct or persistent foul play. May be designated according to type of game judged such as Cricket Umpire; Hockey Umpire; Football Referee; Volleyball Referee. May check bona fide players in a tournament.

ISCO 08 Unit Group Details:

Code	3422
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Sports Coaches, Instructors and Officials

3422.0500

Marker/Groundsmen and Women

Marker (Sports) marks and maintains athletic tracks and courts for various sports events and games. Measures and marks out ground, courts according to specifications using measuring tape, lime powder, or chalk. Supervises cleaning, sweeping, lining and rolling of cricket pitch, hockey or football fields, tennis or badminton courts, sport tracks etc. Maintains billiard table by periodical ironing of cushion surface and marking out playing and scoring lines. Attends courts and fields events, follows game in progress and supplies sporting gear and equipment when necessary. Exhibits scoring board, and notes and announces scoring points of players. Collects charges or fees for game, where prescribed, and accounts it to superior. Maintains sports equipment like cricket bats, badminton and tennis racquets, nets, posts etc. May act as professional coach in particular game, give practice to players or teach game to beginners.

ISCO 08 Unit Group Details:

Code 3422

Title Sports Coaches, Instructors and Officials

3422.9900

Sports Coaches, Instructors and Officials, Other

Athletes, Sportspersons and Related Associate Professionals, other include associate professionals who participate in competitive sporting events, conduct sports training, compile rules concerning

sports events, and control the progress of these events not classified elsewhere.

ISCO 08 Unit Group Details:

Code 3422

Title Sports Coaches, Instructors and Officials

Family 3423

Fitness and Recreation Instructors, and Programme Leaders

Fitness and Recreation Instructors and Programme leaders lead, guide and instruct groups and individuals in recreational, fitness or outdoor adventure activities.

3423.0101

Fitness Trainer/Fitness Instructor

Fitness Trainer is also known as Gym trainer, Trainer or Gym Coach or Fitness coach. Individuals in this role are involved in the physical training of others through various fitness activities. The responsibilities of a Fitness trainer include to help trainees of all ages, shape and sizes to get healthier and achieve desired fitness levels through focused exercises and activities.

Qualification Pack Details:

QP NOS Reference SPF/Q1102

QP NOS Name Fitness Trainer

NSQF Level 4

ISCO 08 Unit Group Details:

Code 3423

Title Fitness and Recreation Instructors and Programme Leaders

3423.0200

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Physical Training Instructor/Physical Education Teacher

Physical Training Instructor conducts physical training classes, organizes games and trains students in games and athletics. Trains and engages students of colleges, schools and allied institutions individually or in-groups in calisthenics (science of bodily exercise without any apparatus or with light hand apparatus), gymnastics, and other physical exercises to promote strength and gracefulness, or to reduce and correct body. Teaches use of dumbbells, bars and other equipment. Organizes, leads, instructs and referees games such as hockey, basketball, football or kabaddi and organizes inter-class, inter-units, or inter-district sports competitions and athletic meets. Supervises maintenance of gymnasium and sports equipment. Organizes picnics, tours and other re-creational activities of students. May give health talks and ensure personal cleanliness and community hygiene among students. May be designated as Physical Director, Drill Master, Games Teacher, Physical Training Mistress (for girls) according to degree of responsibility and nature of duties performed.

ISCO 08 Unit Group Details:

Code 3423
Title Fitness and Recreation Instructors and Programme Leaders

3423.0501

Lifeguard

Lifeguards are also known as pool guard, beach lifeguard or lifesavers. Lifeguards work at swimming pools, beaches and inland waterways to keep swimmers safe. Individuals in this role would observe and supervise swimming areas to prevent

accidents. Responsibilities include making swimmers aware of dangerous situations, and in an emergency carrying out a rescue procedure.

Qualification Pack Details:

QP NOS Reference	SPF/Q1104
QP NOS Name	Lifeguard
NSQF Level	4

ISCO 08 Unit Group Details:

Code 3423
Title Fitness and Recreation Instructors and Programme Leaders

3423.9900

Fitness and Recreation Instructors and Programme Leaders

Fitness and Recreation Instructors and Programme Leaders Others, include instructors and programme leaders who lead, guide and instruct groups and individuals in recreational, fitness or outdoor adventure activities not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3423
Title Fitness and Recreation Instructors and Programme Leaders

Family 3431

Photographers

Photographers operate still cameras to photograph people, events, scenes, materials, products and other subjects.

3431.0100

Photographer, General

Photographer, General takes photograph of persons, places, or other subjects, using various kinds of photographic equipment. Measures day light using exposing meter

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

or arranges artificial lighting and holds or places camera at desired angle and distance from subject to be photographed. Focuses lens and adjusts lens opening and exposure time. Loads camera with film or plate. Presses lever to open lens shutter and exposes film or plate by pressing lever, allowing time, if necessary and removes negative from camera. Develops negative in darkroom by dipping it in developer, washing it in fixing solution and further washing it in water and allows developed film to dry. Examines developed film for defects, and retouches negative using pencil or brush after applying retouching medium. Makes prints or enlargements in sensitized paper; dries them by grazing on glazing-sheet or by spreading on flat surface and trims glazed or unglazed prints according to required size and mounts them. May take colour photographs and develop colour films adopting special processes. May specialize in studio photography or take photographs of important events for reproduction in newspapers, buildings, machinery, industrial plants, for trade advertisements.

ISCO 08 Unit Group Details:

Code	3431
Title	Photographers

3431.0200

Photographer News

Photographer News; Press Photographer photographs news events, persons or objects for use in news-papers, magazines and other publications. Receives instructions from News Editor or Chief Reporter regarding nature of pictures to be taken. Travels to location; loads camera with film, waits for suitable moment and takes photographs. Attends State functions and parties and takes photographs of important persons

arousing special interest of news value for publication. Accompanies important visitors and dignitaries and takes photographs of significant events associating important persons. Removes exposed film for developing and printing. Examines print, gives appropriate title or heading, and hands it over to News Editor for publication. Supplies series of pictures on selected topics, for writing feature articles in magazines. May develop films and print copies.

ISCO 08 Unit Group Details:

Code	3431
Title	Photographers

3431.0300

Photographer, Aerial

Photographer, Aerial photographs objects, places and areas of vital importance from aeroplanes in flight, for use in surveys, planning, development and other scientific and military purposes. Determines number of exposures and time lapse between them by making necessary calculations. Loads camera, adjusts exposure-time and exposes film by opening shutter at calculated intervals. Operates and maintains automatic camera and photo equipment for aerial photographs. Develops aerial films of various types in automatic, semi-automatic or manual tank developers. Makes prints for photo interpretation.

ISCO 08 Unit Group Details:

Code	3431
Title	Photographers

3431.9900

Photographers, Other

Photographers and Image and Sound Recording Equipment Operators, Other take photographs of persons, places and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

objects and record sound for different purposes and include Photographers, Image and Sound Recording Equipment Operators not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3431
Title Photographers

Family 3432

Interior designers and decorators

Interior designers and decorators plan and design commercial, industrial, public, retail and residential building interiors to produce an environment tailored to a purpose, taking into consideration factors that enhance living and working environments and sales promotion. They co-ordinate and participate in their construction and decoration.

3432.0100

Interior Designer

Interior Designer plans, designs, and furnishes interiors of residential, commercial, or industrial buildings. Formulates design which is practical, aesthetic, and conducive to intended purposes, such as raising productivity, selling merchandise, or improving life style. May specialize in a particular field, style, or phase of interior design. Estimates material requirements and costs, and presents design to client for approval. Confers with client to determine factors affecting planning interior environments, such as budget, architectural preferences, and purpose and function. Advises client on interior design factors, such as space planning, layout and utilisation of furnishings and equipment, and colour co-ordination.

Selects or designs and purchases furnishings, art works, and accessories. Subcontract fabrication, installation, and arrangement of carpeting, fixtures, accessories, draperies, paint and wall coverings, art work, furniture, and related items. Render design ideas in form of paste-ups or drawings. Plans and designs interior environments for boats, planes, buses, trains, and other enclosed spaces.

ISCO 08 Unit Group Details:

Code 3432
Title Interior Designers and Decorators

3432.0200

Decorator

Decorator; Designer creates artistic and ornamental designs in colour for interior and exterior decorations and displays and arranges in attractive manner wares, products, furniture etc. Creates own designs to satisfy clients requirements and taste etc. showing style, shape, size and other characteristics or products. Makes sketches and diagrams or design keeping into consideration purpose, cost and preferences of client. Arranges decorative material, furniture, wares, products etc. in artistic manner. May specialize in setting and decorating stages and may be known as Set Decorator. May be known as Interior Decorator, Decorative Designer, Window Display Designer, Display Artist, etc., according to field of specialisation.

ISCO 08 Unit Group Details:

Code 3432
Title Interior Designers and Decorators

3432.0501

Bathroom and Kitchen Designer

Bathroom and Kitchen Designer is responsible for design of bathrooms and kitchens in a housing setups.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference PSC/Q0204
QP NOS Name Bathroom and Kitchen Designer
NSQF Level 6

Head Cook plans meals and supervises and co-ordinates work of cooks and other kitchen helpers in large hotels, restaurants or other establishments and abroad ships or railway trains. Plans daily menu, taking into account probable number of guests, marketing conditions, popularity of various dishes and recency of menus used, and assigns prices to items. Supervises preparation and cooking of food, and instructs cooks as required. Concocts special dishes and invents recipes. Tests cooked foods by tasting or smelling them. Requisitions or purchases food supplies and kitchen equipment as necessary and checks them for quality and quantity and supervises cooks and other kitchen workers. May hire and discharge cooks.

ISCO 08 Unit Group Details:

Code 3432
Title Interior Designers and Decorators

3432.9900

Decorators and Commercial Designers, Other

Decorators and Commercial Designers, other include other associate professionals who apply artistic techniques to product design, interior decoration and sales promotion not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3432
Title Interior Designers and Decorators

Family 3433

Gallery, Museum and Library Technicians

Gallery, museum and Library Technicians prepare artworks, specimens and artefacts for collections, arrange and construct gallery exhibits, and assist Librarians to organize and operate systems for handling recorded material and files.

Family 3434

3434.0100 Head Cook/Head Chef

ISCO 08 Unit Group Details:

Code 3434
Title Chefs

Family 3435

Other Artistic and Cultural Associate Professionals

3435.0100

Tattoo Artist

Tattoo Artist pricks skin of patron, using needled electric tool, that inserts indelible nontoxic pigment into skin to form decorative or ornamental design. Shaves area to receive tattoo and washes it, using germicidal soap. Presses charcoal-coated stencil, draws design, or traces pattern of design onto skin of patron, to mark outline of design. Dips needles of tool into coloured pigment solution and presses needles into skin to insert indelible pigment into skin following outline of design. Applies sterile dressing to area. Sterilises needles in steam-heated cabinet (steriliser). Mixes nontoxic coloured

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

pigments according to formula. Adjusts and repairs needled electric tool, using hand tools, such as screwdrivers and pliers. May draw original designs on paper, trace designs onto acetate sheet, and cut out design to form pattern or stencil, using stylus and knife.

ISCO 08 Unit Group Details:

Code 3435
Title Other Artistic and Cultural Associate Professionals

3435.0200

Stuntman

Stuntman performs dare-devil feats such as diving stunts, perilous rides, or spectacular jumps for dramatic productions. Wears appropriate dress and ensures, that all requisites, to feat are in order. Performs, dare-devil feats such as diving from high tower on altitude after setting fire to dress in to deep well filled with water below, riding bicycle, motor cycle or motor car at high speed jumping over hollow space or from raised platform, riding motor cycle at great speed inside walls of-hollow circular globe or well (wooden or metal structure specially prepared for performance of perilous feat etc.

ISCO 08 Unit Group Details:

Code 3435
Title Other Artistic and Cultural Associate Professionals

3435.0300

Prompter

Prompter prompts Actors who forget their lines in operatic productions by whispering to them from behind stage. Stands behind stage and follows script of performance closely. Speaks cues and lines by whispering to Actors when they

forget their lines. May direct actions of Actors while prompting. May substitute Actors when necessary.

ISCO 08 Unit Group Details:

Code 3435
Title Other Artistic and Cultural Associate Professionals

3435.0400

Merry-go-Round Operator

Merry-go-Round Operator; Amusement Equipment Operator operates and controls or instructs patrons how to control mechanical riding devices such as merry-go-round, giant wheels, midget auto and other amusement contrivances or equipment furnished by amusement parks, carnivals or similar places of entertainment for use of patrons. Sets riding devices and gives them trial run to ensure that they are in working order. Informs patrons to fasten belt, bar, or other safety device determining that they are safely seated and not overcrowded. Move controls to start to permit operation of ride by patron and stops equipment after allotted time. Adds to or removes equipment, according to amount of patronage. Oils, refuels, adjusts and repairs device. Tests equipment daily before opening ride to patrons. May notify patron of expiration of period for which fee was paid to use device. May collect tickets or cash fares from patrons. May space rides operated in cars or sections to avoid danger of collisions. May be designated according to equipment operated as Railroad Operator, Roller-Coaster Operator; Auto-speedway Operator.

ISCO 08 Unit Group Details:

Code 3435
Title Other Artistic and Cultural Associate Professionals

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

3435.0500

Floral Designer

Floral Designer designs, cuts, and arranges live, dried, or artificial flowers and foliage. Confers with clients regarding price and type of arrangement desired and the date, time, and place of delivery. Plans arrangement according to client's requirements, utilizing knowledge of design and properties of materials, or select appropriate standard design pattern. Waters plants, and cut, condition, and clean flowers and foliage for storage. Selects flora and foliage for arrangements, working with numerous combinations to synthesize and develop new creations. Order and purchase flowers and supplies from wholesalers and growers. Wraps and price completed arrangements. Trims material and arranges bouquets, wreaths, terrariums, and other items using trimmers, shapers, wire, pins, floral tape, foam, and other materials. Performs office and retail service duties such as keeping financial records, serving customers, answering telephones, selling giftware items and receiving payment. Informs customers about the care, maintenance, and handling of various flowers and foliage, indoor plants, and other items. Decorates or supervises the decoration of buildings, halls, churches, or other facilities for parties, weddings and other occasions.

ISCO 08 Unit Group Details:

Code 3435

Title Other Artistic and Cultural Associate Professionals

3435.9900

Other Artistic and Cultural Associate Professionals, Other

Clowns, Magicians, Acrobats and Related Associate Professionals, Other include

those who entertain audiences in circuses and other places by performing a variety of acts not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3435

Title Other Artistic and Cultural Associate Professionals

Sub Division 35

Information and Communications Technicians

Information and Communications Technicians provide support for the day-to-day running of computer systems, communications systems and networks and perform technical tasks related to telecommunications, broadcast of image and sound as well as other types of telecommunication signals on land, sea or in aircraft.

Tasks performed by workers in this sub-major group usually include: providing assistance to information and communication system users. Installing new programs and equipment; establishing, operating and maintaining network and other data communications systems; installing, monitoring and supporting Internet and Intranet websites or web server hardware or software; modifying web pages; and performing web server backup and recovery operations; controlling equipment to record sound, edit and mix image and sound recordings; controlling and maintaining transmitting and broadcast systems and satellite systems for radio and television programmes. Controlling and maintaining radio communications systems, satellite services, and multiplex systems on land, sea or in aircraft; providing technical assistance connected with research and the development of computer systems and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

telecommunications equipment, or testing prototypes; designing and preparing blueprints of circuitry according to the specifications given; providing technical supervision of the manufacture, utilization, maintenance and repair of telecommunications systems.

Occupations in this Sub Division are classified into the following Groups:

351 Information and Communication Technology Operations and User Support Technicians
352 Telecommunication and Broadcasting Technicians

Group 351 Information and Communication Technology Operations and User Support Technicians

Information and Communication Technology Operations and User Support Technicians provide support for the day-to-day running of communications systems, computer systems and networks and provide technical assistance to users

Occupations in this Group are classified into the following Families:

3511 Information and Communication Technology Operations Technicians
3512 Information and Communication Technology User Support Technicians
3513 Computer Network and Systems Technician
3514 Web Technician

Family 3511

Information and Communication Technology Operations Technicians

Information and Communications Technology Operations Technicians support the day-to-day processing, operation and monitoring of information and communications technology systems, peripherals, hardware, software and related computer equipment to ensure optimal performance, and identify problems.

3511.0101 Domestic Biometric Data Operator

Domestic Biometric Data Operator is mainly responsible for the smooth running of biometric data capture and ensuring users get maximum benefits from them. Individual tasks vary depending on the size and structure of the organization, but may include installing and configuring computer hardware operating systems and applications; monitoring and maintaining computer systems and networks, troubleshooting the biometric system and network problems and diagnosing and solving hardware/software faults etc.

Qualification Pack Details:

QP NOS Reference	SSC/Q2213
QP NOS Name	Domestic Biometric Data Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 3511
Title Information and Communication Technology Operations Technicians

Family 3512

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Information and Communication Technology User Support Technicians

Information and Communications Technology User Support Technicians provide technical assistance to users, either directly or by telephone, e-mail or other electronic means, including diagnosing and resolving issues and problems with software, hardware, computer peripheral equipment, networks, databases and the Internet, and providing guidance and support in the deployment, installation and maintenance of systems.

3512.0100 Data Recovery Planner/System Administrator

Data Recovery Planner; Disaster Recovery Manager develops, co-ordinates implementation of, and tests plan to continue establishment data processing activities at off-site location in case of emergency, such as fire, at main site. Establishes priority of data processing activities according to importance to business. Determines hardware, software, data files, safe storage facilities, and other resources required. Develops plan to meet emergency data processing needs. Identifies personnel needed to implement plan. Presents plan to management and recommends means of obtaining required facilities, such as contracting with off-site vendor. Co-ordinates implementation of plan. Tests emergency data processing system, using computer and test data. Writes report to document test results and updates emergency recovery procedures.

ISCO 08 Unit Group Details:

Code 3512
Title Information and Communication
Technology User Support
Technicians

3512.0101 Domestic IT Helpdesk Attendant

Domestic IT Helpdesk Attendant is mainly responsible for the smooth running of computer systems and ensuring users get maximum benefits from them. Individual tasks vary depending on the size and structure of the organization, but may include installing and configuring computer hardware operating systems and applications; monitoring and maintaining computer systems and networks; talking staff/clients through a series of actions, either face to face or over the telephone to help set up systems or resolve issues; troubleshooting system and network problems and diagnosing and solving hardware/software faults etc.

Qualification Pack Details:

QP NOS Reference	SSC/Q0110
QP NOS Name	Domestic IT Helpdesk Attendant
NSQF Level	4

ISCO 08 Unit Group Details:

Code 3513
Title Computer Network and Systems Technician

3512.0200 Desk Top Publishing Operator

Desk Top Publishing Operator lays out pages, selects size and style of type, and enters text and graphics into computer to produce printed materials, such as advertisements, brochures, newsletters, and forms, applying knowledge of graphic

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

arts techniques and typesetting and using computer: Reviews layout and customer order. Enters text into computer, using input device such as mouse, keyboard, scanner, or modem. Scans artwork, using optical scanner which changes image into computer-readable form. Enters commands to position text and illustrations on page grid of computer monitor. Creates spaces between letters, columns, and lines, applying knowledge of typesetting, and enters commands, using input device. Arranges page according to aesthetic standards, layout specifications of Graphic Designer, and applying knowledge of layout and computer software. Prints paper or film copies of completed material. May alter illustration to enlarge, reduce, or clarify image. May operate automatic film developer to process photographs. May assemble artwork into paste-up and perform key lining manually.

ISCO 08 Unit Group Details:

Code 3512
Title Information and Communication
Technology User Support
Technicians

3512.0202

Associate-Desktop Publishing (DTP)

Associate-Desktop Publishing (DTP) puts research reports into standard templates. These templates could be in flash, macromedia, acrobat or html.

Qualification Pack Details:

QP NOS Reference	SSC/Q2702
QP NOS Name	Associate-Desktop Publishing (DTP)
NSQF Level	7

ISCO 08 Unit Group Details:

Code 3512

Title Information and Communication
Technology User Support
Technicians

3514.0300

Programming Assistant/Junior Software Engineer

Programming Assistant installs, maintains and updates computer programs by making minor changes and adjustments to them under the guidance of computing professionals. Maintains and updates documents of computer programs and installations. Applies knowledge of principles and practices in the area of programming and computing in order to identify and solve problems arising in the course of their work. They may receive guidance from managers or professionals. May supervise other workers also.

ISCO 08 Unit Group Details:

Code 3512
Title Information and Communication
Technology User Support
Technicians

3512.0401

Disk Duplicator

Disk Duplicator creates a master hard disk by loading appropriate files and duplicates them in multiple disks for use in end-user computing systems. The individual at work is responsible for creating a master hard disk and using it for duplicating on empty hard disks to be used by original equipment manufacturers.

Qualification Pack Details:

QP NOS Reference	ELE/Q4302
QP NOS Name	Disk Duplicator
NSQF Level	4

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 3512
Title Information and Communication
Technology User Support
Technicians

Qualification Pack Details:

QP NOS Reference SSC/Q2401
QP NOS Name Associate-Clinical
Data Management
NSQF Level 7

3512.0501

IT Co-ordinator in School

IT Co-ordinator in School is also called 'e-learning Facilitator', the IT Co-ordinator provides support on the e-learning content and hardware used for training in schools. The individual at work is responsible for operating and maintaining e-learning hardware and updating and operating e-learning applications. The individual also assists teachers and students in operating the e-learning applications.

Qualification Pack Details:

QP NOS Reference ELE/Q4701
QP NOS Name IT Co-ordinator in
School
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3512
Title Information and Communication
Technology User Support
Technicians

3512.0601

Associate-Clinical Data Management

Associate-Clinical Data Management are required to organize and maintain information related to medical research and records, and perform data coding of records. They need to ensure completeness, correctness and quality of the data generated during clinical trials with high accuracy.

ISCO 08 Unit Group Details:

Code 3512
Title Information and Communication
Technology User Support
Technicians

3512.0700

Medical Transcriptionist

Medical Transcriptionists use computer and transcribing machines with headset and foot pedal or voice mail to listen to recordings by physicians and other healthcare professionals dictating a variety of medical reports, such as emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Carries out programming tasks connected with the installation and maintenance of computer hardware and software. Transcribes dictated reports and translates medical jargon and abbreviations into their expanded forms. Edits as necessary and returns reports in either printed or electronic form by mail/e-mail to the dictator for review and signature, or correction.

ISCO 08 Unit Group Details:

Code 3512
Title Information and Communication
Technology User Support
Technicians

3512.0702

Associate-Medical Transcription

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Associate-Medical Transcription is responsible for documentation of medical records dictated and authored by medical professionals. This involves basic documentation, verification and validation of the documents such as history and physical reports, clinic notes, office notes, operative reports, consultation notes, discharge summaries, letters, psychiatric evaluations, laboratory reports, x-ray reports and pathology reports.

Qualification Pack Details:

QP NOS Reference	SSC/Q2402
QP NOS Name	Associate-Medical Transcription
NSQF Level	7

ISCO 08 Unit Group Details:

Code	3512
Title	Information and Communication Technology User Support Technicians

3512.0801 Engineer-Technical Support

Engineer-Technical Support is responsible for resolving Level 1/2 incidents affecting the operation of production systems, through troubleshooting and implementing known fixes. It involves framing of long term and short term plans for IT Support/Helpdesk.

Qualification Pack Details:

QP NOS Reference	SSC/Q0101
QP NOS Name	Engineer-Technical Support (Level 1)
NSQF Level	5

ISCO 08 Unit Group Details:

Code	3512
Title	Information and Communication Technology User Support Technicians

3512.9900

Information and Communication Technology User Support Technicians, Other

Computer Assistants, Other include all other Computer Assistants not elsewhere classified.

ISCO 08 Unit Group Details:

Code	3512
Title	Information and Communication Technology User Support Technicians

Family 3513

Computer Network and Systems Technician

Computer Network and Systems Technicians establish, operate and maintain network and other data communication systems.

3513.0100

System Administration Assistant/Junior System Administrator

System Administration Assistant provides assistance to users of microcomputers and standard software systems at installation and when a problem occurs. Installs/reinstalls new computer programs on particular hardware and operating system configurations. Installs new peripheral units and makes necessary parameter adjustments in operating systems and drives. Performs back-up operations. Keeps log of computing systems. May receive guidance from

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Managers or professionals. May supervise other workers also.

ISCO 08 Unit Group Details:

Code 3513

Title Computer Network and Systems Technician

3513.0200

Computer Security Specialist

Computer Security Specialist regulates access to computer data files, monitors data file use, and updates computer security files: Enters commands into computer to allow access to computer system for employee who forgot password. Reads computer security files to determine whether denial of data access reported by employee is justified. Modifies security files to correct error, or explains that employee authorisation does not permit access. Answers employee questions about computer security. Modifies security files to add new employees, delete former employees, and change employee name, following notice received from computer user departments and personnel office. Sends printouts listing employee data authorisation to computer user departments to verify or correct information in security files. Reviews data use records and compares user names listed in records with employee authorisation to ensure that all employees who accessed data files were entitled to do so. Deletes data access of unauthorised users, and for users who have not used data for specified time.

ISCO 08 Unit Group Details:

Code 3513

Title Computer Network and Systems Technician

3513.0301

Infrastructure Engineer

Infrastructure Engineer provides technical assistance in the installation, configuration, administration, support and maintenance of systems, storage or back-up services of databases etc. These roles provide cross-functional IT Services Management and work closely with multiple domains on the development, maintenance and reporting of service catalogues, processes/procedures, and new technology/tools.

Qualification Pack Details:

QP NOS Reference SSC/Q0801

QP NOS Name Infrastructure
Engineer

NSQF Level 5

ISCO 08 Unit Group Details:

Code 3513

Title Computer Network and Systems Technician

3513.9900

Computer Network and Systems Technician, other

Computer Network and Systems Technician, other include technicians who establish, operate and maintain network and other data communications systems not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3513

Title Computer Network and Systems Technician

Family 3514

Web Technician

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Web Technicians maintain, monitor and support the optimal functioning of Internet and Intranet websites and web server hardware and software.

Group 352

Telecommunication and Broadcasting Technicians

Telecommunications and Broadcasting Technicians control technical functioning of equipment to record and edit images and sound and for transmitting radio and television broadcasts of images and sounds, as well as other types of telecommunication signals on land, sea or in aircraft, perform technical tasks connected with telecommunications engineering research and with the design, manufacture, assembly, construction, operation, maintenance and repair of telecommunications systems.

Occupations in this Group are classified into the following Families:

3521 Broadcasting and Audio-visual Technicians

3522 Telecommunication Engineering Technicians

Family 3521 Broadcasting and Audio-Visual Technicians

Broadcasting and Audio-Visual Technicians control technical functioning of equipment to record and edit images and sound and for transmitting radio and television broadcasts of images and sounds, and other types of

telecommunication signals on land, sea or in aircraft.

3521.0100

Cinematographer

Cinematographer; Cameraman, Motion Picture, photographs persons, scenes and places with motion picture camera for production of feature films. Receives instructions from Producer, Motion Picture as to type and photographic effect desired on scenes to be filmed. Directs loading of camera with reel of film. Positions or supervises setting up of camera by assistant; focusses and sets camera on scene or object to be shot; controls lighting for desired general detail of scene to be photographed; hooks up motor on camera at starting signal of Director Motion Picture; turns on motor switch of camera, puts his eyes close to view finder or looks through film with eye-piece, and follows scene of action, moving or adjusting his camera by hand. Unloads camera when film reel is fully exposed for further processing. Writes camera reports indicating details of shooting, lighting conditions, types of lenses, filters and diffusers used. May direct setting up and making of various adjustment of power driven motion picture camera.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-Visual Technicians

3521.0200

Movie Cameraman

Movie Cameraman; Cine Cameraman photographs persons, places and events with movie camera (cine) for purposes other than production of feature films. Loads cine camera with film either

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

coloured or black and white as required. Visits place of interest, event or assembly. Holds or places camera at desired angle and distance from subject to be photographed; adjusts lens, aperture, depending on type of subject and lighting condition or arranges artificial light for better effect; focusses camera lens or lenses to subject holding his eye close to view finder or looking through film with eye-piece and exposes certain length of film by pressing lever to run motor inside camera. Alters angle or distance of shot as required. Unloads camera when film is exposed and sends film for developing. Views processed film against light and cuts and trims films to make desired strip of subject. Projects or exhibits film on screen using projector to explain events function, for audience. May develop and process films. May enlarge prints. May attend to minor repair to cine cameras. May be designated as Television Cameraman if engaged in television studio.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-Visual Technicians

3521.0300

Cameraman, Animation

Cameraman (Animation) operates special camera to make animated cartoon motion picture film. Discusses with Director and Producer, (Film) and renders advise about can era movements and feasibility of variety of shot; envisages in script and chart and suggests alternatives wherever necessary. Receives animation charts and drawings. Sets and adjusts camera and lighting exposure appropriate to type of film used and mood and effect to be emphasised. Installs frame on camera

table for exposure and positions overhead camera suspended securely over frame. Shoots frame by frame in a predetermined sequence and regulates exposure and aperture to obtain special effect such as fade out or fade in. Instructs Laboratory Technicians about method of processing of films, which need special treatment for effective development of striking feature of certain shots.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-Visual Technicians

3521.0401

Sound Recording Equipment Operator/Sound Assistant

Sound Recording Equipment Operator operates electronic equipment which records sound in pulses on composition discs or on reels of tape, wire or film for such uses as film and gramophone record production and radio broadcasting. Places microphones in position and connects them to recording equipment. Places blank discs or reels of tape, wire or film in machine. Sets volume and tone controls and makes other adjustments as necessary. Starts machine, watches its operation closely and listens, by means of headphones or loudspeaker, to sound being recorded. Manipulates controls during operation as required. May perform minor repairs.

Qualification Pack Details:

QP NOS Reference MES/Q3403

QP NOS Name Sound Assistant

NSQF Level 3

ISCO 08 Unit Group Details:

Code 3521

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Broadcasting and Audio-Visual
Technicians

QP NOS Name Sound Editor
NSQF Level 4

3521.0501 **Film Editor/Editor**

Film Editor edits motion picture films in sequence as per script by cutting away unwanted portion of film and synchronises picture and sound negatives. Studies script or story of picture. Examines picture and sound negatives over editing table fitted with special lighting effects. Marks unnecessary portions of film and cuts them. Joins ends of selected lengths of films in proper sequence on splicer machine using special adhesives (cement). Arranges film in convenient number of reels or parts and inserts appropriate titles and banners for distinction. Views assembled film on screen for corrections if any. Synchronises picture negative with sound negative and fills up void portions with necessary music track.

Qualification Pack Details:

QP NOS Reference MES/Q1401
QP NOS Name Editor
NSQF Level 4

ISCO 08 Unit Group Details:

Code 3521
Title Broadcasting and Audio-visual
Technicians

3521.0511 **Sound Editor**

Sound Editor is responsible for preparing, organizing and editing sound sequences that meet the quality standards and requirements of production

Qualification Pack Details:

QP NOS Reference MES/Q3404

ISCO 08 Unit Group Details:

Code 3521
Title Broadcasting and Audio-visual
Technicians

3521.0600 **Supervisor, Broadcasting Audio- Visual Projection and Sound Equipment Operations**

Supervisors, Broadcasting, Audio-Visual Projection and Sound Equipment Operations supervise upkeep, setting and proper operations of television and radio broadcasting and recording units, cinema projectors and other audio-visual and some equipment and ensures their proper performance. Examines broadcasting, recording, transmitting and receiving units, projectors and other audio-visual and sound equipment for operational efficiency. Checks equipment part by part according to prescribed specifications, gets defects removed and puts them in trial to observe density, linearity, clarity of picture and voice and other factors, as appropriate. Synchronises sound with picture in audio-visual projections such as in television, cinematography, etc., and ensures correct matching. Gets machines and equipment set according to programme and adjusts them as necessary and guides workers in proper operations to meet audience desired result. Maintains prescribed records and registers and ensures proper upkeep of all machines and equipment under his charge. May be designated as SUPERVISOR BROADCASTING UNIT; SUPERVISOR RECORDING UNIT, etc., according to nature of work performed.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-Visual Technicians

3521.0700

Television Broadcasting Station Operator

Television Broadcasting Station Operator operates and adjusts equipment associated with transmitter of television broadcasting station. Switches on transmitter, views programmes through television monitor and adjusts picture for quality. Listens to programmes through loud speaker or headphone, observes indicators and adjusts tone and volume. Switches off transmitter on completion of programme, gets defects removed if any and keeps it ready for next set. May make minor repairs and replace parts.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual Technicians

3521.0800

Radio Operator, Broadcasting Station

Radio Operator, Broadcasting Station; Engineering Assistant, Broadcasting Station adjusts tunes and operates transmitting and receiving equipment for broadcasting news and other programmes. Switches on and operates transmitter for broadcasting news or programme. Listens to broadcast through headphone or loudspeaker and manipulates control knobs to adjust volume and tone. Fixes up microphone, adjusts amplifier level and monitors loudspeakers by further tuning, if

necessary, to ensure clarity of reception. Adjusts and tunes receivers for relaying different stations. May work at transmitting or receiving station or at Studio Centre. May operate transmitter of television station. May do minor repairs and replace defective parts. May record music, talk etc. for relaying.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-Visual Technicians

3521.0900

Cinematograph Operator

Cinematograph Operator; Cinema Projectionist; Cinema Operator, Cine Projectionist sets and operates motion-picture projector with sound-reproducing projector with sound-reproducing equipment on screen and attends to their repairs. Winds films on reel, places reel on projector and draws filmstrip through guide rollers and light chamber to collecting film roller below. Starts machine. Adjusts lens and sound reproduction equipment to obtain clear image of projected film on screen, synchronise sound reproduction at required pitch and get machine ready for show. Projects film on screen as scheduled through projection box and checks correct focus and sound reproduction while film is being shown. Stops machine in case of film stripping or breakage, joins ends of film and resumes projection after necessary setting within minimum possible time. Removes collected film on lower reel to rewind and keep it ready for next show. Cleans and oils projector parts periodically. May project films on portable screens, outdoors, etc.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual Technicians

3521.1000

Public Address Equipment Operator

Public Address Equipment Operator installs and operates sound amplifying equipment used at public functions. Places loudspeakers in position and connects loudspeaker wires to amplifiers. Places microphones near speaker, orchestra or other sources of sound. Connects microphone wires to amplifiers. Tests installation by switching it on and listening from various points while some one talks into microphone. Adjusts position of microphones and loud speakers, if necessary, and regulates volume and tone during operation of equipment. May operate tape recorder or record player. May repair sound-amplifying equipment.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual Technicians

3521.1100

Station Officer, Overseas Communication

Station Officer, Overseas Communication Engineer Overseas Communication sets, operates and maintains wireless transmission and receiving equipment on prescribed cycle at scheduled hours for communications of over-seas and long distance (inter-nations) messages. Adjusts communication transmission instrument to have maximum number of messages

despatched and receiving stations contacted on allotted frequency channels and prescribed cycles at scheduled hours. Adjusts receiving instruments for selectivity, sensitivity, and clarity of messages received and sent and decides on most appropriate wave length, frequency, aerial etc. Detects disturbances or jamming of communication interference with transmission, etc. and reports unauthorized use of frequency channels by other organizations to higher authorities. Evolves maintenance schedules of equipment power supply, carrier channel, etc. and supervises repairs and replacements of defective parts using test equipment like cathode rays, oscilloscopes and distortion sets. Supervises work of Station Technical Assistants, advises higher formation for speedy clearance of traffic on particular frequency at scheduled hours and guides them where necessary. Maintains necessary records for reference and other official purposes. May specialize in operation, design and maintenance of any particular kind of telecommunication equipment like aerials, transmission equipment, receiving equipment, etc. May work at transmitting and receiving stations or at telegraph office.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual Technicians

3521.1200

Station Technical Assistant, Overseas Communication

Station Technical Assistant, Overseas Communication; assists Station Officer Overseas Communication in setting, operating and maintaining wireless transmission and receiving equipment.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Receives instructions from Station Officer Overseas Communication and sets and operates wireless receiving and transmitting equipment such as radio transmitting and receiving equipment, land line and V.F.T. (Voice Frequency telegraphy) equipment, radio telephone and terminal equipment, transistors, radio-photo equipment (equipment for radio photography), radio facsimile equipment (equipment for radio black and white sketches and diagrams) etc., on prescribed frequency channels and cycles during scheduled hours to receive and transmit messages. Assists Station Officer Overseas Communication in running submarine cable circuits, operating automatic error correcting and detecting equipment, measuring radio frequency, checking radio signals, choosing right aerial to obtain optimum signal; changing transmitter waves, clearing faults, etc. and in their installation and maintenance work. May be designated as PHOTO-RADIO OPERATOR if engaged only for receiving and transmitting radio photographs. May appreciate sub-normal radio condition and assists in improving them. May work as transmitting or receiving station or at central telegraph office.

ISCO 08 Unit Group Details:

Code 3521
Title Broadcasting and Audio-visual Technicians

3521.1300

Wireless Operator

Wireless Operator operates, tunes and maintains wireless equipment for receiving and transmitting messages in code or plain language on particular wavelength and deciphers coded messages received for onward delivery.

Operates switches to connect transmitter to generator and telephone or telegraph equipment. Sets wireless equipment to required frequency by turning dial and tunes it to requisite volume and tone. Transmits messages by radiotelephone or radiotelegraph in plain or coded message. Receives messages in coded or plain language, writes them on special forms, deciphers coded messages, if necessary, and delivers them to proper authority through messengers. Maintains records and logbooks of messages received and despatched. May charge batteries, change valves of wireless equipment and rectify minor faults.

ISCO 08 Unit Group Details:

Code 3521
Title Broadcasting and Audio-visual Technicians

3521.1400

Radio Operator, Ship

Radio Operator, Ship operates radio equipment on board ship for receiving and transmitting code messages by radio telephone or radio-telegraph system. Adjusts and sets apparatus to operate on desired frequency. Maintains regular contact with nearest coastal radio stations to obtain weather reports and time-signals and reports necessary information about ship's navigation and location. Keeps regular watch to pick up signals from ships in distress. Provides navigational warnings and reports weather conditions. Maintains wireless equipment in working order, record of messages received or sent and does minor repairs and replacements of parts. May also maintain radar equipment.

ISCO 08 Unit Group Details:

Code 3521

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Broadcasting and Audio-visual Technicians

3521.1500 Radio Operator, Aircraft

Radio Operator, Aircraft; Radio Officer, Aircraft operates and adjusts radio equipment on board aircraft in flight to maintain contact with ground station, exchange messages and to inform Pilot about weather conditions, landing instructions etc. Inspects equipment including radar before undertaking flights. Operates radio to send and receive messages and maintains contact with ground stations. Receives weather information and other messages in prescribed code from Control Tower Operator and transmits them to Pilots during flights. Operates radio navigational equipment and frequently tunes to detect or listen to international distress signals. Maintains log of all messages and instructions received and despatched. May do repairs to radio during emergency. May operate direction finding equipment and report readings to Pilot.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual Technicians

3521.1600 Control Tower Operator, Aerodrome

Control Tower Operator, Aerodrome Operates and adjusts wireless equipment for transmitting and receiving messages to and from aircrafts for landing, taking off, etc. Adjusts wireless equipment to proper wavelength and correct frequency. Establishes radio contact with incoming

air-transport and transmits messages received from Traffic Controller for Pilots to fly on specific course at definite flying level and also communicates other information regarding weather condition at field. Signals aircraft at down-wind end of runway when to take off by means of electric ray gun or flag. Controls airport lights (boundary, runway, hazard and flood lights) by electric push batteries. Maintains record of all messages received and despatched for inspection. Reports defects in lighting arrangements to Chief Controller to arrange for rectification. May operate radar for aircraft identification and weather conditions. May signal aircraft not equipped with radio by means of flag or electric-ray gun.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual Technicians

3521.1700 Radar Operator

Radar Operator operates and maintains radar equipment to give range and direction of targets or objects such as aircrafts, fog, rain clouds and cyclonic storm in sky around operating station. Switches on radar set and opens filaments and blower units. Allows set to warm up and raises high-tension voltage slowly to achieve operating condition. Switches aerial rotation circuit, and observes image on radar screen with aid of short, medium or long range scales to determine distance altitude, direction and speed of object detected. Employs voice communication (Radio-telephone or Morse) to convey information to operating room. May attend to minor faults to maintain set in operating conditions.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual
Technicians**3521.2000****Signaller, Ship**

Signaller, Ship; Signalman, Ship signals messages by waving flag or flashing semaphore (light) depending on natural light and weather conditions to port authorities and nearby ships. Keeps watch at port, observes approaching ships with binoculars and informs authorities accordingly. Obtains instructions from superiors regarding place or position where incoming ship is to be communicated to ship authorities at sea. Passes messages in inter-national signalling system to ship authorities by signalling with flags or flashes of semaphore depending on visibility and weather conditions. Maintains record of all messages sent out or received. Receives messages from ships, informs Pilot and arranges for piloting ship in to port. Arranges launches and board for shipping crew or Pilot for going to ship or coming to shore. Takes barometer readings, observes force and direction of wind, wave positions, etc. and records them in log book. Attends to telephone calls regarding movement of ships and any messages to be sent. Maintains shipping register indicating name of ship, time of arrival and departure, place where berthed, etc. Hoists weather signals or flags at time of emergency, warning ships to stay at sea. Performs watch duty by shifts from observations tower.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual
Technicians**3521.2100****Light Keeper, Light House**

Light Keeper, Light House operates light house signalling equipment to guide incoming or passing ships, keeps watch during the night and maintains equipment in working order. Lights gas lamps (lighting equipment) at dusk by lighting its burner with spirit lamp. Opens valve of oil drum to supply oil under pressure through pipe to gas lamp. Cleans nozzle hole of burner using pin to remove obstruction if any. Maintains supply of oil to burner at prescribed pressure as indicated in meter of oil drum. Ensures that mantles of gas lamp burns brightly without any flame. Winds machine to full tension by rotating or winding driving pulley with hand lever or handle and then releases it to rotate lens around light or lamp to throw out light rays at set speed. Winds driving pulley at prescribed interval (once an hour) to keep it under full tension. Records meteorological data, direction of wind, temperature (both inside and outside) of lamp-room, condition of seas (whether calm, moderate or rough) etc.; at prescribed intervals. Puts out light at sunrise by cutting off oil supply to gas lamp. Cleans and polishes lenses, lamp and glass panes daily using special cloth and solution. Oils bearing wheel, clock work, weight shaft mechanism and other equipment during day. Ensures that oil drum is full and is maintained at prescribed pressure. Submits periodical reports regarding condition of light-house, meteorological data etc.; to superiors. Attends to minor breakdowns and replaces parts such as burner, mantle etc.; as required. Reports to superiors about cases of major breakdowns for rectifications. Maintains general cleanliness and ensures that ladder

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

platform, galleries, dome, etc. are in perfect service condition. Replenishes stores as required. May light buoys in harbour.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual Technicians

3521.9900

Broadcasting and Audio-visual Technicians, Other

Broadcasting and Telecommunications Equipment Operators, other include those who control technical functioning of equipment for transmitting radio and television broadcasts of pre-recorded or live images and sounds, as well as other types of telecommunications signals, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3521

Title Broadcasting and Audio-visual Technicians

Family 3522

Telecommunication Engineering Technicians

Telecommunications Engineering Technicians perform technical tasks connected with telecommunications engineering research, as well as with the design, manufacture, assembly, construction, operation, maintenance and repair of telecommunications systems.

3522.0100

Telecommunication, Technician

Technician, Telecommunication receives instructions regarding work to be done and guides workers in installation, operation and maintenance of television, telegraph, telephone, telex system, radio, radar, sound recording and other equipment under his charge. Studies standing duty chart, sketches, blue prints etc., and determines method of work to be adopted. Calculates data by original observations or from available sources. Draws necessary stores and guides workers in correct manufacture and assembly of units, alignments, synchronizing, tuning, continuity, voltage control, output, etc. according to nature of work in which engaged. Checks work during manufacture, repair or installation and on completion for current consumption, resistance, frequency, output, leakage, performance and other factors, using instruments such as voltmeter megger, frequency meter oscillograph, resonance recorder, etc., and makes adjustments, alterations or replacements as necessary to ensure standard production and stipulated performance. May undertake complicated work to avoid mistakes and to train workers by actual demonstration.

ISCO 08 Unit Group Details:

Code 3522

Title Telecommunication Engineering Technicians

3522.0200

Line Inspector, Telephone

Line Inspector, Telephone Supervises execution of new installations and maintenance of existing telephone lines. Estimates expenditure and equipment required for executing new installations. Supervises work of installation of telephone lines at site. Checks faulty lines

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

to locate and remove defects, and conducts maintenance check of lines to ensure efficient performance of communication system. Supervises utilization of staff engaged in installation and maintenance work and is responsible for maintenance of line books.

ISCO 08 Unit Group Details:

Code 3522

Title Telecommunication Engineering Technicians

3522.0300

Telephone Inspector

Telephone Inspector; inspects telephone installation to ensure efficient operation of equipment. Scrutinizes complaints by subscribers, visits premises of subscribers, test-checks instruments installed, detects and rectifies faults. Conducts periodical maintenance checks of installed equipment to ensure efficient, uninterrupted operation. Supervises personal engaged in maintenance of telephone equipment. May prepare estimates for new installations and supervise installation work.

ISCO 08 Unit Group Details:

Code 3522

Title Telecommunication Engineering Technicians

3522.0400

Wireless Inspector Electronics

Wireless Inspector; Wireless Licence Inspector inspects radio licences and checks unauthorised use of receiving-sets. Visits premises of radio-set users, checks licences and initiates prosecution proceedings against pirates (non-holder of licences). Makes enquiries about

character, antecedents and solvency of new dealers in wireless receiving sets for grant of licences. Maintains liaison with and conducts periodical inspection of premises of authorised dealers in wireless receiving sets. Organizes anti-piracy drives. Examines applications of owners of defective sets for exemption of licence fee.

ISCO 08 Unit Group Details:

Code 3522

Title Telecommunication Engineering Technicians

3522.9900

Telecommunication Engineering Technicians, Other

Telecommunications Engineering Technicians other, include Engineering Technicians who design, manufacture, assemble, construct, operate, maintain and repair telecommunication systems not elsewhere classified.

ISCO 08 Unit Group Details:

Code 3522

Title Telecommunication Engineering Technicians

Division 4

Clerks/Clerical Support Workers

Clerical support workers record, organize, store, compute and retrieve information related, and perform a number of clerical duties in connection with money-handling operations, travel arrangements, requests for information, and appointments.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Tasks performed by clerical support workers usually include: stenography, typing, and operating word processors and other office machines; entering data into computers; carrying out secretarial duties; recording and computing numerical data; keeping records relating to stocks, production and transport; keeping records relating to passenger and freight transport; carrying out clerical duties in libraries; filing documents; carrying out duties in connection with mail services; preparing and checking material for printing; writing on behalf of illiterate persons; performing money-handling operations; dealing with travel arrangements; supplying information requested by clients and making appointments; operating a telephone switchboard. Supervision of other workers may be included.

Occupations in this Division are classified into the following Sub Divisions:

41	General and Keyboard Clerks
42	Customer Services Clerks
43	Numerical and Material Recording Clerks
44	Other Clerical Support Workers

Sub Division 41 General and Keyboard Clerks

General and Keyboard Clerks record, organize, store and retrieve information and perform a range of clerical and administrative tasks according to established procedures.

Tasks performed by workers in this sub-major group usually include: operating personal computers; word-processors or typewriters, recording, inputting and processing data using computers; to

record input and process text, calculating, bookkeeping and similar office machines to input and process text and data; performing a wide range of general clerical duties including preparing invoices, checking figures, filing, faxing or processing mail.

Occupations in this Sub Division are classified into the following Groups:

411	General Office Clerks
412	Secretaries (General)
413	Keyboard Operators

Group 411 General Office Clerks

General Office Clerks perform a range of clerical and administrative tasks according to established procedures.

Occupations in this Group are classified into the following Families:

4110	General Office Clerks
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Family 4110 General Office Clerks

General Office Clerks perform a range of clerical and administrative tasks according to established procedures.

4110.0100 Clerk, General

Clerk, General performs variety of clerical duties such as maintenance of records, receipt and dispatch of dak, routine correspondence, tabulating data, preparing production schedules, wage

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

bills, and insurance and provident fund accounts, keeping record of issue and receipt of library books, maintaining record of incoming and outgoing railway waggons and carriages, booking and delivering of goods, maintaining auction accounts, calculating and releasing octroi, attending to clerical duties of court, allocating and supervising work of process serving staff, receiving applications for granting arms licences, doing clerical work for legal practitioner, copying and comparison work, etc. May do his own typing. May operate office computing and accounting machine. Is designated according to nature of duties performed such as: Record Clerk/Record Keeper/Record Supplier if engaged on receipt, issue and maintenance of record. Diarist/Receipt Clerk/Dispatch Clerk if engaged on receipt and dispatch of dak. Correspondence Clerk if engaged in dealing with correspondence from individuals, customers, offices etc. Personnel Clerk if attends to clerical work regarding recruitment, employment and service condition of personnel employed. Production Clerk/Progress Clerk if engaged on preparation of production schedule based on time and operations involved in various stages of production. Wages Clerk if engaged on calculation, preparation of pay bills or wage sheets based on workers' attendance and terms of employment. Insurance Clerk If engaged on performing routing clerical tasks, connected with transaction of life, fire, automobile or other type of insurance. Provident Fund Clerk if engaged on maintenance of provident fund accounts. Postal Clerk if engaged on performing various clerical tasks in post office such as accepting money for money orders or saving bank deposits, receiving parcels, insured and registered letters. Telegraph Clerk if engaged in performing

various tasks in receiving and transmitting telegrams. Trains Clerk (Railway) if engaged in keeping records waggons or carriages (their number and capacity) coming in and going out of railway station. Weighing Clerk if engaged in weighing goods and articles received or issued on weighing machine and maintains relevant clerical records. Commercial Clerk (Transport)/Goods Clerk, Parcel Clerk, Freight Clerk if attends to booking and delivery of goods by rail, road, water or air routes. Auction Clerk if engaged in maintaining records of auction transactions. Octroi Clerk if engaged in calculating and realising octroi duty, terminal or toll-tax on listed goods entering municipal limits. Administrative Clerk, Court/Nazir Court if engaged in allocating and supervising work of process serving staff and realization of fines and dues imposed by court. Arms Clerk if engaged in receiving applications for granting arms' licences, their renewals etc. Copyist if engaged in preparing copies of document by hand or by typewriter. Lawyer's Clerk; Munshi if engaged in performing clerical work for legal practitioner. Examiner Court if engaged in comparing hand-written or typed matter from original documents.

ISCO 08 Unit Group Details:

Code 4110

Title General Office Clerks

4110.0200 Clerk, Enquiry

Clerk, Inquiry; Information Clerk attends to inquiries made personally, on phone or by post and gives required information either by personal knowledge or after consulting relevant record or official concerned. Exhibits at inquiry counter publicity material and other notices for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

public. Supplies required information to enquiries made personally, on telephone or by post either through personal knowledge or by consulting books or other relevant records of official concerned. Maintains record of enquiries. Directs visitors to official concerned. May operate telephone switch Board.

ISCO 08 Unit Group Details:

Code 4110
Title General Office Clerks

4110.0300

Copyright Clerk

Clerk, Inquiry; Information Clerk attends to inquiries made personally, on phone or by post and gives required information either by personal knowledge or after consulting relevant record or official concerned. Exhibits at inquiry counter publicity material and other notices for public. Supplies required information to enquiries made personally, on telephone or by post either through personal knowledge or by consulting books or other relevant records of official concerned. Maintains record of enquiries. Directs visitors to official concerned. May operate telephone switch Board.

ISCO 08 Unit Group Details:

Code 4110
Title General Office Clerks

4110.0400

Copy Holder

Copy Holder reads manuscript aloud to Proof Reader to enable him to make corrections in proof. Uses prescribed technical terminology to indicate capital letters, italics, punctuation's, paragraph divisions etc.

ISCO 08 Unit Group Details:

Code 4110
Title General Office Clerks

4110.0500

Time Keeper

Time Keeper keeps day to day attendance of workers employed in establishment, institution or factory showing time of arrival and departure. Gets gate of factory opened at prescribed time to allow workers to go in for work. Arranges worker's time cards or tokens on special racks near automatic time punching clock or collection box. Observes workers collecting, punching-clock and depositing them in collection boxes. Collects all time-cards and marks their attendance. Prepares periodical statements, absentee statements and muster rolls of workers, indicating total number of hours worked per day, week or month. Sends prepared muster roll to wage section for computing total wages earned. Supervises collection of gate passes, at gate to permit workers going out earlier than usual time and keeps record of such passes. Attends to enquires of visitors. Issues passes or entry and directs them to section or officer concerned. Maintains visitors' book indicating visitor's name, purpose, time of arrival and departure. May issue tokens to individual worker. May assist wage office in preparation and distribution of pay packets to workers. May use calculating machine or computation table.

ISCO 08 Unit Group Details:

Code 4110
Title General Office Clerks

4110.0600

Time Keeper, Motor Transport

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Time-Keeper; Starter; Vehicle Time Recorder,(Motor Transport) keeps daily record of arrival and departure of buses at bus stations or terminus. Regulates running of buses to time schedule. Records serial number of tickets blocks on bus-conductors way bill at start and end of each journey. Informs superior officers about heavy rush of traffic necessitating diversion of buses or running of extra buses. Attends to enquiries from public about timings, fare, etc. Marks attendance of Bus Drivers and Bus Conductors, allots them duties and arranges for relief crew in place of absentees. Reports to supervisors, cases of gross irregularities and malpractices. May take charge of lost property handed over by Bus Conductors.

ISCO 08 Unit Group Details:

Code 4110

Title General Office Clerks

Group 412

Secretaries (General)

Secretaries (General) use typewriters, personal computers or other word-processing equipment to transcribe correspondence and other documents, check and format documents prepared by other staff, deal with incoming and outgoing mail, screen requests for meetings or appointments, and perform a variety of administrative support tasks.

Occupations in this Group are classified into the following Families:

4120 Secretaries (General)

Family 4120
Secretaries (General)

Secretaries (General) use typewriters, personal computers or other word-processing equipment to transcribe correspondence and other documents, check and format documents prepared by other staff, deal with incoming and outgoing mail, screen requests for meetings or appointments, and perform a variety of administrative support tasks.

4120.0100

Private Secretary

Private Secretary-cum-Stenographer; Personal Assistant takes dictation in shorthand and reproduces it on paper using typewriter and performs various other clerical duties to assist superiors. Takes dictations in shorthand and transcribes them using typewriter. Receives and opens mail and submits it to superiors for information and further action. Maintains diary to note time, date and place of meetings and other engagements for employer or superior. Reminds employer or superior of engagements and accompanies him if required. Attends to routine enquiries in person, writing or over phone. Receives visitors and arranges their interviews with superior. Keeps important and confidential records. May attend to routine correspondence on behalf of employer.

ISCO 08 Unit Group Details:

Code 4120

Title Secretaries (General)

4120.0200

Personal Secretary

Personal Secretary performs routine clerical and administrative functions such as drafting correspondence, scheduling

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

appointments, organizing and maintaining paper and electronic files, or providing information to callers. Operates office equipment such as fax machines, copiers, and phone systems, and use computers for spreadsheet, word processing, database management, and other applications. Answers telephones and give information to callers, take messages, or transfer calls to appropriate individuals. Greets visitors and callers, handle their inquiries, and direct them to the appropriate persons according to their needs. Sets up and maintains paper and electronic filing systems for records, correspondence, and other material. Locates and attaches appropriate files to incoming correspondence requiring replies. Opens, reads, routes, and distributes incoming mail and other material, and prepares answers to routine letters. Completes forms in accordance with company procedures.

ISCO 08 Unit Group Details:

Code 4120
Title Secretaries (General)

4120.0300

Panchayat Secretary

Panchayat Secretary performs administrative and executive duties for execution of community development programmes entrusted by the village panchayat. Assembles and prepares village people for extension of community work. Organizes social welfare programmes and educational and co-operative activities. Gives guidance to field staff in improvement of rural communications and hygienic conditions. Makes arrangements for recovery of taxes and issues licenses and permits granted by Panchayat.

ISCO 08 Unit Group Details:

Code 4120
Title Secretaries (General)

4120.9900

Secretaries, Other

Secretaries, other include secretaries who use typewriters or word-processing equipment to check and transcribe correspondence and other documents, deal with incoming and outgoing mail, and deal with routine correspondence on their own initiative not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4120
Title Secretaries (General)

Group 413

Keyboard Operators

Keyboard Operators input and process text and data, and prepare, edit and generate documents for storage, processing, publication and transmission.

Occupations in this Group are classified into the following Families:

4131 Typists and Word Processing Operators

4132 Data Entry Clerks

Family 4131

Typists and Word Processing Operators

Typists and Word Processing Operators type, edit and print using typewriter, personal computer or other word processor, and record oral or written matter in shorthand.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

4131.0100

Secretary/Back Office Support

Stenographers; Steno-typist records dictations in shorthand and transcribe them in typewritten form. Takes dictation in shorthand. Transcribe dictated material from note book, using typewriter. Compares typed matter and submits them to superiors. May cut stencil on typewriter for use on duplicating machine.

ISCO 08 Unit Group Details:

Code 4131

Title Typists and Word Processing Operators

4131.0200

Reporter

Reporter records in shorthand verbatim reports of meetings, conferences etc. and transcribes them into longhand using typewriter. Attends conferences, meetings or lectures or other proceedings and makes verbatim record in rapid shorthand. Transcribes shorthand notes into longhand by using typewriter. Checks transcribed matter with notes for accuracy and passes them to superiors. May attend law courts, legislative assemblies etc. to cover proceedings.

ISCO 08 Unit Group Details:

Code 4131

Title Typists and Word Processing Operators

4131.0400

Braille Typist

Braille Typist operates braille typewriter to transcribe reading matter for people with visual impairment: Reads copy and operates braille typewriter to emboss specially treated paper with various

combinations of dots that characterize braille alphabet, using braille code form.

ISCO 08 Unit Group Details:

Code 4131

Title Typists and Word Processing Operators

4131.0500

Teleprinter Operator

Teleprinter Operator; Teletype Operator transmits and receives telegraphic messages to and from outside station by operating teleprinter or teletype machine (electrically operated machine having typewriter key-board for transmission and type-printing for receiving). Adjusts roll of paper on machine for typing. Starts machine and connects places for receiving or transmitting messages. Receives messages, reports or news items to be transmitted and places them on holding device of machine. Types messages to be transmitted by operating key board of Tele-printer Machine with fingers. Observes machine typing automatically incoming messages on paper to detect mistakes, if any, and to tear off paper when message is complete. Rectifies mistakes from transmitting and by getting confirmation. Tears off typed paper from machine, sorts them out and sends them for delivery. Maintains record of time of receipt of messages, break-downs, repairs and number of messages received etc. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 4131

Title Typists and Word Processing Operators

4131.0600

Computer Operator

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Computer Operator operates computer and peripheral equipment to process business, scientific, engineering, or other data, according to operating instructions. Enters commands, using keyboard of computer terminal, and presses buttons and flips switches on computer and peripheral equipment, such as tape drive, printer, data communications equipment, and plotter, to integrate and operate equipment, following operating instructions and schedule. Loads peripheral equipment with selected materials, such as tapes and printer paper for operating runs, or oversees loading of peripheral equipment by Peripheral Equipment Operators. Enters commands to clear computer system and start operation, using keyboard of computer terminal. Observes peripheral equipment and error messages displayed on monitor of terminal to detect faulty output or machine stoppage. Enters commands to correct error or stoppage and resume operations. Notifies supervisor of errors or equipment stoppage. Clears equipment at end of operating run and reviews schedule to determine next assignment. Records problems which occurred, such as down time, and actions taken. May answer telephone calls to assist computer users encountering problem. May assist workers in classifying, cataloguing, and maintaining tapes.

ISCO 08 Unit Group Details:

Code 4131
Title Typists and Word Processing Operators

4131.9900 Typists and Word Processing Operators, Other

Word processor and Related Operators, other include all others who type, edit, and print various documents using word-processing equipment not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4131
Title Typists and Word Processing Operators

Family 4132

Data Entry Clerks

Data Entry Clerks enter coded, statistical, financial and other numerical data into electronic equipment, computerized databases, spreadsheets or other data repositories using a keyboard, mouse, or optical scanner, speech recognition software other data entry tools. They enter data into mechanical and electronic devices to perform mathematical calculations.

4132.0401

Data Entry Machine Operator

Data Entry Operator operates keyboard or other data entry device to enter data into computer or onto magnetic tape or disk for subsequent entry: Enters alphabetic, numeric, or symbolic data from source documents into computer, using data entry device, such as keyboard or optical scanner, and following format displayed on screen. Compares data entered with source documents, or re-enters data in verification format on screen to detect errors. Deletes incorrectly entered data, and re-enters correct data. May compile, sort, and verify accuracy of data to be entered. May keep record of work completed.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	G&J/Q4303
QP NOS Name	Data Entry Person
NSQF Level	2

material with code and stacks it on rack. May operate machine equipped with reel-feeding mechanism, electronic or mechanical counters, and automatic wire cutting and stripping devices.

ISCO 08 Unit Group Details:

Code	4132
Title	Data Entry Clerks

4132.0402

Domestic Data Entry Operator

Domestic Data Entry Operator is responsible to provide daily work reports and work on daily hour bases. The individual is responsible for electronic entry of data from the client side to the office site or vice-versa. Individual tasks vary depending on the size and structure of the organization.

Qualification Pack Details:

QP NOS Reference	SSC/Q2212
QP NOS Name	Domestic Data Entry Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	4132
Title	Data Entry Clerks

4132.0600

Coding Machine Operator

Coding Machine Operator tends coding machine to print identification codes on material, such as wire, tape and plastic tubing. Installs specified type, code letters and symbols in machine mandrel, using tweezers. Moves controls to regulate pressure of stamping die and heating device on mandrel. Starts machine and inserts end of material between feed rollers of machine. Coils and ties printed

ISCO 08 Unit Group Details:

Code	4132
Title	Data Entry Clerks

4132.0800

Duplicating Machine Operator/Photocopier

Duplicating Machine Operator; Photocopier Machine Operator sets and operates electrically operated duplicating or photocopying machine for reproducing copies of type written or hand written matter. Loads and adjusts duplicating paper at feeding end. Checks impressions on duplicate copies for clarity and uniformity. Makes necessary adjustments when required. Reports defects in working of machine if necessary to superiors. May oil and clean machine. May maintain record of work turned out and number of copies taken. May keep stock of duplicating paper, ink paste, brushes etc. and record of supply, repairs, servicing etc.

ISCO 08 Unit Group Details:

Code	4132
Title	Data Entry Clerks

4132.0900

Embossing Machine Operator

Embossing Machine Operator (Clerical) operates power driven machine to emboss names, addresses and other details in metal plates. Receives subject matter to be embossed. Places metal plate in holder of machine. Sets desired

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

character or letter in correct position and presses foot pedal to lower dye and emboss character or letter on plate giving necessary spacing, etc. Collects embossed plates and stores them in racks in serial order. Supplies embossed plates to Addressing Machines Operator. May operate addressing machine and print addresses on envelopes, documents, etc. May oil and clean machine.

ISCO 08 Unit Group Details:

Code	4132
Title	Data Entry Clerks

4132.1000

Addressing Machine Operator

Addressing Machine Operator operates electrically driven machine which automatically prints names, addresses etc. on envelopes, documents, forms, etc. Loads magazine of machine with required number of embossed metal plates to effect printing. Adjusts levers to set speed of machine and number of copies required for each plate. Places stock of form, envelopes and other documents to be printed on table of machine. Starts machine to automatically release embossed plate to correct position for printing. Removes printed material from machine and stocks them separately. Ensures clear and accurate printing on documents, forms, etc. Ejects metal plate at delivery end into tray after printing. Changes ribbon of machine periodically to effect clear impressions. Stocks embossed plates in special racks. Oils and cleans machine. May operate embossing machine.

ISCO 08 Unit Group Details:

Code	4132
Title	Data Entry Clerks

4132.1300

Book Keeping Machine Operator

Book Keeping Machine Operator uses computer software for calculating and recording business transactions of institution. Receives data for calculation to be made. May perform general clerical duties.

ISCO 08 Unit Group Details:

Code	4132
Title	Data Entry Clerks

4132.1400

Bill Processing Clerk

Bill Processing Clerk uses computer software to run mathematical processes, such as addition, subtraction, multiplication, and division, to calculate and record billing, accounting, statistical, and other numerical data. Duties include preparation of statements, bills, and invoices, and to copy and post data, make computations, and compile records of transactions. Balance and reconciles batch control totals with source documents or computer listings in order to locate errors, encode correct amounts, or prepare correction records. Computes monies due on personal and real property, inventories, redemption payments and other amounts, applying specialized knowledge of tax rates, formulas, interest rates, and other relevant information. Computes payroll and retirement amounts, applying knowledge of payroll deductions, actuarial tables, disability factors, and survivor allowances. Encodes and adds amounts of transaction documents, such as checks or money orders, using encoding machines. Enters into machines all information needed for bill generation. Observes operation of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

sorters to locate documents that machines cannot read, and manually record amounts of these documents. Sends completed bills to Billing Clerks for information verification.

ISCO 08 Unit Group Details:

Code 4132
Title Data Entry Clerks

4132.9900

Data Entry Clerks, Other

Computing Machine Operators, other include all other operators who operate bookkeeping and computing machines not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4132
Title Data Entry Clerks

Sub Division 42

Customer Services Clerks

Customer Service Clerks deal with clients in connection with money-handling operations, travel arrangements, requests for information, making appointments, operating telephone switchboards, and interviewing for surveys or to complete applications for eligibility for services.

Tasks performed by workers in this sub-major group include: performing money-handling operations in banks, post offices, betting and gambling establishments or dealing with travel arrangements; supplying information requested by clients and making appointments; operating telephone switchboards; greeting and receiving visitors; interviewing survey respondents; interviewing applicants for services.

Occupations in this Sub Division are classified into the following Groups:

421 Tellers, Money Collectors and Related Clerks

422 Client Information Workers

Group 421

Tellers, Money Collectors and Related Clerks

Tellers, Money Collectors and Related Clerks perform money-handling operations in establishments relating to banking, postal services, betting or gambling, pawning and debt-collecting.

Occupations in this Group are classified into the following Families:

4211 Bank Tellers and Related Clerks

4212 Bookmakers, Croupiers and Related Gaming Workers

4213 Pawnbrokers and Money-lenders

4214 Debt Collectors and Related Workers

Family 4211

Bank Tellers and Related Clerks

Bank Tellers and Related Clerks deal directly with clients of banks or post offices in connection with receiving, changing and paying out money, or providing mail services.

4211.0100

Cashier, General

Cashier, General makes and receives payments and maintains record of cash transaction in Bank, office or Commercial

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and Industrial establishments. Receives cash remittances from customers. Counts cash and examines currency notes and coins to detect counterfeit ones. Makes entries in receipt registers, initials voucher and passes them to superiors for signature. Receives passed cheques, bills, vouchers etc., and makes payment to parties after making entries in register. Maintains Cash Book and other Account Registers and prepares statement of monetary transaction of receipt and payment made during day. Verifies statement of account from other daily records of actual receipt and payment. Draws or deposits money in treasuries or banks. Receives foreign currency and makes payment in local currencies to clients. Keeps cash and other valuables in strong rooms or vaults for safe custody. Renders periodical report on cash transactions to superiors. Makes payment of wages and salaries to staff against acquaintance rolls, pay bills etc. May check various cash registers of Shroff to scrutinize accounts. May supervise the work of Shroffs, Money Testers and Bill Collector. May assist Accountant in preparation of budgets, balance sheets, etc. May operate calculating machines.

ISCO 08 Unit Group Details:

Code 4211

Title Bank Tellers and Related Clerks

4211.0200 Cashier, Bank

Cashier, Bank; Shroff receives and makes payment in bank to customers against pay-in slips, withdrawal slips, cheques, bills, drafts, vouchers, etc., and maintains account of daily transactions. Receives at counter, cash and pay-in slips from customers, counts money and examines currency notes or coins to detect

counterfeit ones. Makes payment to customers against passed cheques, bills, vouchers, etc. received from different sections of bank after making necessary entries in register. Affixes appropriate rubber stamp on cheques, bills etc. to indicate payment. Closes accounts at end of day and totals entries in registers to show day's receipts and payments. Prepares accounts statements and sends them to superiors after tallying with records. Hands over cash in hand to Cashier General for keeping it in safe custody. Sends paid-cheques, bills, vouchers, slips etc. to ledger clerk for posting necessary debit or credit entries. May operate calculating machine. May post entries in ledgers.

ISCO 08 Unit Group Details:

Code 4211

Title Bank Tellers and Related Clerks

4211.0301 Cashier, Cash Counter

Cashier, Cash Counter; Cash Clerk; Clerk, Cash Counter; receives cash in payment against goods sold or services rendered in shop, firm or establishment. Receives cash in payment against goods sold or services rendered, ascertains amount from bill or from other sources prescribed, counts cash, detects counterfeit coins. Issues receipt for payment received. Maintains daily cash account of cash in hand against book record. Deposits money in Treasury or Bank as and when necessary.

Qualification Pack Details:

QP NOS Reference RAS/Q0102

QP NOS Name Cashier (Retail)

NSQF Level 2

ISCO 08 Unit Group Details:

Code 4211

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Bank Tellers and Related Clerks

4211.0302

Cashier, Gem and Jewellery

Cashier is an employee in a retail store who handles cash transaction with the customers. The individual in the retail store is in charge of billing, collecting the payment from the customers and closing the sales transaction in a retail store. Also, they maintain the record of sales transaction and other documents required for compliance.

Qualification Pack Details:

QP NOS Reference	G&J/Q8301
QP NOS Name	Cashier
NSQF Level	4

ISCO 08 Unit Group Details:

Code	4211
Title	Bank Tellers and Related Clerks

4211.0400

Teller, Bank

Teller Bank pays out money up to specified limit in bank at pay counter to depositors or their Authorised persons, presenting withdrawal forms or cheques and maintains up-to-date account of payments made. Receives cheques or withdrawal forms from payees and compares signatures with specimens retained in bank. Verifies depositor's balance from ledger book and pays out money. Makes debit entries in depositor's account card and draws up-to-date balance. Prepares account of amount drawn from Cashier and money disbursed and submits it to Supervisor. May make debit entries in depositor's personal account book.

ISCO 08 Unit Group Details:

Code 4211

Title Bank Tellers and Related Clerks

4211.9900

Bank Tellers and Related Clerks, Other

Tellers and Other Counter Clerks, other include clerks who deal directly with clients of banks or post offices in connection with receiving, changing and paying out money, or providing mail services not elsewhere classified.

ISCO 08 Unit Group Details:

Code	4211
Title	Bank Tellers and Related Clerks

Family 4212

Bookmakers, Croupiers and Related Gaming Workers

Bookmakers and croupiers and related gambling workers determine odds and receive and pay off bets on results of sporting or other events, or conduct games of chance in gambling establishments.

4212.0100

Booking Clerk, Recreation

Booking Clerk, Recreation issues tickets to public on cash payment in theatres, cinemas, exhibitions etc. on booking counters. Attends to enquiries for type or class of tickets required or for advance booking of seats. Issues tickets or reservation slips for required class of accommodation. Maintains record of sale proceeds showing entertainment-tax collected separately. Deposits cash and unsold tickets with superiors at close of show. May maintain chart of available

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

seats and indicate seat number on each ticket.

ISCO 08 Unit Group Details:

Code 4212

Title Bookmakers, Croupiers and Related Gaming Workers

4212.0200

Book Maker

Book Maker; Bookie manages establishment to receive and pay off bets placed by horse racing patrons. Prepares and issues lists of approximate handicap odds on each horse prior to race, based on previous performance of horse under similar conditions. Determines risks on each horse to refuse additional bets beyond maximum limits of liability. Records bets placed over counter or by telephone and issues betting receipts. Pays off bets on track pari-mutuel basis and keeps account of cash transactions. Pays taxes on earnings.

ISCO 08 Unit Group Details:

Code 4212

Title Bookmakers, Croupiers and Related Gaming Workers

4212.9900

Bookmakers, Croupiers and Related Gaming Workers, Other

Book Makers, Other include other bookmakers not classified elsewhere.

ISCO 08 Unit Group Details:

Code 4212

Title Bookmakers, Croupiers and Related Gaming Workers

Family 4213

Pawnbrokers and Money-lenders

Pawnbrokers and money-lenders lend money against articles deposited as pledges, or against property or other security.

4213.0100

Money Lender

Money Lender; Sahukar lends money to persons on personal or collateral security or on security of property and charges interest on loan advanced. Attends to clients visiting his establishment, funds out his requirements and details of security offered, if any. Scrutinises security offered and settles with client, rate of interest instalments and other terms. Prepares promissory note on stamped paper and obtains signature of client and of witnesses. Advances money to client and keeps promissory note in safe custody. Calculates interest on amount of loan periodically and collects it from client either personally or through his agent. Takes legal proceedings, against defaulting clients and collects or arranges to collect instalments from court. Keeps record of transmissions made.

ISCO 08 Unit Group Details:

Code 4213

Title Pawnbrokers and Money-lenders

4213.0200

Pawn Broker

Pawn-Broker advances money to persons on security of movable property such as jewellery, utensils, furniture, etc. pledged with him and charges interest on amount of money advanced. Attends to clients visiting his establishment and finds out amount of loan required, and property he

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

is willing to pledge. Evaluates property and informs client maximum amount which could be advanced against property pledged. Settles rate of interest and other terms of repayment. Issues receipt or gets promissory note on unstamped paper signed by client and witnesses mentioning amount of money advanced, property pledged, rate of interest fixed, etc. Keeps pledged property of client. Calculates interest due on amount of money advanced and settles accounts with clients at time of repayment of loan. Keeps record of transactions made and submits report to Government authorities if required. May effect sale or auction of property pledged with him after giving due notice to clients concerned.

ISCO 08 Unit Group Details:

Code 4213

Title Pawnbrokers and Money-lenders

4213.9900

Pawnbrokers and Money-lenders, Other

Pawnbrokers and Money-lenders, other include those who lend money against articles deposited as pledges, or against property or other security not classified elsewhere.

ISCO 08 Unit Group Details:

Code 4213

Title Pawnbrokers and Money-lenders

Family 4214

Debt Collectors and Related Workers

Debt Collectors and Related Workers collect payments on overdue accounts

and bad cheques and collect charity payments.

4214.0100

Bill Collector

Bill Collector collects rent or payment of bills or other dues from customers, tenants, etc., on behalf of Government or other employer and issues receipts for collections made. Receives outstanding bills, invoices from cash section. Makes entries in register. Contacts parties, collects dues and issues receipt Remits cash so collected, to cash section and returns undelivered bills. May encash cheques or postal orders.

ISCO 08 Unit Group Details:

Code 4214

Title Debt Collectors and Related
Workers

4214.0201

Debt Recovery Agents

Debt Recovery Agents (DRA) are representatives appointed by banks and lawful debt collection agencies to act as their agents and make calls or visit debtors to collect payments on any kind of past due bill without violating the regulations implemented by RBI. They are also responsible for providing debtors every important detail of their loan's terms and conditions and guide them accordingly for the payment.

Qualification Pack Details:

QP NOS Reference BSC/Q0701

QP NOS Name Debt Recovery

Agent

NSQF Level

4

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code

Title

4214.9900

Debt Collectors and Related Workers, Other

Debt-collectors and Related Workers, other include workers who collect payments and perform clerical duties associated with these collections not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4214

Title Debt

Collectors and Related Workers

Group 422

Client Information Workers

Client Information Clerks provide or obtain information in person, by telephone or electronic means such as e-mail in connection with making travel arrangements, describing the products or services of an organization, registering and greeting guests and visitors, making appointments, connecting telephone calls and collecting information from survey respondents or applicants for services.

Occupations in this Group are classified into the following Families:

4221 Travel Consultants and Clerks
4222 Contact Centre Information Clerks
4223 Telephone Switch Board Operators
4224 Hotel Receptionists
4225 Inquiry Clerks
4226 Receptionist (General)
4227 Survey and Market Research Interviewers

4229 Client Information Worker, Not Elsewhere Classified

Family 4221

Travel Consultants and Clerks

Travel Consultants and Clerks supply information, arrange travel itineraries, obtain travel and accommodation reservations and organize group tours.

4221.0100

Travel Consultants and Organizers

Travel Consultants and Organizers plan itineraries and schedule travel accommodation for customers. They organize or sell complete group travel tours for business and vacation.

ISCO 08 Unit Group Details:

Code 4221

Title Travel Consultants and Clerks

4221.0200

Flight Attendants and Travel Stewards

Flight Attendants and Travel Stewards render personal services to ensure the safety and comfort of passengers. They also plan and co-ordinate housekeeping and social activities in aircrafts and ships.

ISCO 08 Unit Group Details:

Code 4221

Title Travel Consultants and Clerks

4221.0300

Reservation Clerk, Transport/Reservation Assistant

Reservation Clerk, Transport reserves berths, cabins, seats in railway trains,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

boats, ships, motor vehicles or planes by charging prescribed fees. Attends to enquiries of passengers in person, by post or on phone for reservation of cabin, berth or seat. Informs customers latest position regarding availability or non-availability of seats and berths after consulting reservation register. Collects fares and reservation charges from passengers and issues tickets and reservation slips. Makes reservation entries in register. Remits cash collected during day to superiors or Cashier General. May prepare reservation charts and exhibit them at platforms. May fix reservation labels on seats or berths and outside compartment.

ISCO 08 Unit Group Details:

Code 4221

Title Travel Consultants and Clerks

4221.0400

Booking Clerk, Transport/Concierge

Booking Clerk, Transport issues tickets to passengers at booking offices of railways, airlines, navigation and motor transport companies, etc., and maintains book record relating to sale of tickets. Ascertains from passenger destination, number of tickets and class of accommodation for which ticket is required. Collects fares from passengers, locates tickets from panel board, dates tickets and issues them to passengers. Maintains account of tickets sold and amount realised. Hands over daily cash collections to Cashier. Places indents for printed tickets on higher authorities. May book passengers' parcel and luggage. May issue platform tickets, meal tickets, or retiring room tickets. May give cash receipt to parties when required.

ISCO 08 Unit Group Details:

Code 4221

Title Travel Consultants and Clerks

4221.9900

Travel Consultants and Clerks, Others

Cashiers and Ticket Clerks, other include Cashiers and Ticket Clerks who receive, directly from clients, payments for goods or services bought in establishments not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4221

Title Travel Consultants and Clerks

Family 4222

Contact Centre Information Clerks

Contact Centre Information Clerks provide advice and information to clients, respond to queries regarding a company's or an organization's goods, services or policies, and process financial transactions using the telephone or electronic communications media, such as email. They are located in premises that may be remote from clients or other operations of the organizations or companies about whom information is provided.

4222.0101

Technical Support Executive-Non Voice

Technical Support Executive-Non Voice is responsible for resolving queries and customer cases over web-chat or email.

Qualification Pack Details:

QP NOS Reference SSC/Q7201

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Technical Support
	Executive-Non
	Voice

NSQF Level 5

ISCO 08 Unit Group Details:

Code 4222
Title Contact Centre Information Clerks

4222.0102

Technical Support Executive-Voice

Technical Support Executive-Voice is responsible for managing and resolving client queries/issues primarily through telephonic calls.

Qualification Pack Details:

QP NOS Reference SSC/Q7202
QP NOS Name Technical Support
Executive-Voice
NSQF Level 5

ISCO 08 Unit Group Details:

Code 4222
Title Contact Centre Information Clerks

Family 4223

Telephone Switch Board Operators

Telephone Switch Board Operators operate telephone communications switchboards and consoles to establish telephone connections, receive caller inquiries and service problem reports, and record and relay messages to staff or clients.

4223.0100

Telephone Operator, Trunk

Telephone Operator, Trunk controls and operates telephones switch board for

connecting and putting subscriber through long distance (trunk) calls. Attends to phone calls for booking trunk calls. Notes calling and called numbers, name of station, name of particular person if desired, time, date, nature of call such as urgent, ordinary, no delay etc. in trunk call ticket book. Repeats particulars booked for corroboration by caller. Arranges calls in order of priority, booking time and station wise. Inserts answering or calling plug in switch-board to obtain required station, if on direct line. Transmits calls to next stage (telephone exchange) when caller and called are not on direct line or booking calls with Distant-End Operator. Rings calling number to bring them on line, on receipt of advice from caller-end about availability of called number or person. Puts through call when turn comes. Punches trunk call ticket by calculagraph and starts telephone meter for recording time. Watches timing lamp indication and informs subscriber on expiry unit period of three minutes. Extends time to six minutes if desired by caller. Allows extension of time beyond six minutes in higher priority calls and also in other calls if traffic permits. Punches ticket calculagraph on maturity of call. Draws cut plugs, fills time, duration and other particulars of calls in trunk call ticket. Takes down particulars of all incoming calls on inward ticket. Informs improper functioning of circuits or other operational systems to Monitor. May work on local, P.B.X. and special services. May work on trunk information services, give telephone numbers and rates of various places and calculate charges for calls.

ISCO 08 Unit Group Details:

Code 4223
Title Telephone Switch Board Operators

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

4223.0200

Telephone Operator, Local

Telephone Operator, Local operates telephone switch board to establish telephone connections of subscribers for local calls. Watches calling indications on switch board. Inserts answering plug in corresponding jack, depresses speak key and attends calling indication by saying "Number Please". Repeats number called to subscriber for confirmation. Watches switch board plugs and informs caller if required number is engaged. Inserts calling plug in required jack, if free, and puts through call. Watches indication of finishing call and draws out plugs on noticing clearance. May work on trunk, P.B.X and special services.

ISCO 08 Unit Group Details:

Code 4223

Title Telephone Switch Board Operators

4223.0300

Telephone Operator, PBX

Telephone Operator, P.B.X operates telephone switch board in industrial, commercial or public establishment to put through incoming, outgoing and inter-office calls. Watches switchboard for indications of incoming outgoing and inter-office calls. Arranges maturity of calls by regulating answering or calling plugs in corresponding jacks. Draws out plugs when indicator shows clearance of call. Books and arranges trunk calls, attends to enquiries and receives and passes messages over telephone. Records local and trunk calls on register as necessary. May work on special services.

ISCO 08 Unit Group Details:

Code 4223

Title Telephone Switch Board Operators

4223.9900

Telephone Switch Board Operators, Other

Telephone Switch Board Operators, other include telephone operators who operate a telephone switchboard or a section thereof, and deal with local or long distance calls, and various telephone inquiries not elsewhere classified. SERVICE WORKERS AND SHOP AND MARKET SALES WORKERS Service workers and shop and Market Sales Workers provide personal and protective services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or they pose as models for artistic creation and display, or demonstrate and sell goods in wholesale or retail shops and similar establishments, as well as at stalls and on markets. Most occupations in this division require skills at the second skill level.

ISCO 08 Unit Group Details:

Code 4223

Title Telephone Switch Board Operators

Family 4224

Hotel Receptionists

Hotel receptionists register guests, assign rooms, issue keys, provide information concerning the hotel services, make room reservations, keep a record of rooms available for occupancy and present statements of charges to departing guests and receive payment.

4224.0100

Receptionist (Hotel)/Front Office Associate

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Receptionist (Hotel) receives customers, attends to enquiries, assigns rooms after consulting register for availability of room and looks after requirements of patrons. Settles terms and allots required accommodation if available to customers. Requests customers to fill and sign register to establish identity, time of arrival and expected departure. Gets statutory form filled up by foreign visitors coming to stay. Guides customers to allotted rooms, maintains hotel 'Board' up-to-date showing name of occupants, etc. Maintains Hotel record up-to-date showing total number of rooms already occupied, rooms booked or reserved to show correct position of accommodation. Gives information to House Keepers, dining section and kitchen departments regarding arrival of new-comers and their requirements. Supplies details of services rendered to customers to concerned officer for preparing bills for presentation to customers. Presents bills to customers and realises amount from them prior to their departure. Receives dak and messages on behalf of management and clients and delivers it to them. Attends to other requirements of customers. May be required to do correspondence.

ISCO 08 Unit Group Details:

Code	4224
Title	Hotel Receptionists

4224.9900

Hotel Receptionists, Other

Hotel Receptionists, Other include receptionists not elsewhere classified.

ISCO 08 Unit Group Details:

Code	
Title	

Family 4225

Inquiry Clerks

Inquiry Clerks respond to personal, written, electronic mail, and telephone enquiries and complaints about the organization's goods, services and policies, provide information and refer people to other sources. They are employed in locations which put them in direct contact with clients or with the production of the goods and services provided.

4225.0100

Complaint Attending Clerk/Customer Service Desk/Customer Service Executive

Complaint Attending Clerk Investigates and resolves customers' inquiries concerning merchandise, service, billing, or credit rating. Examines pertinent information to determine accuracy of customers' complaints and responsibility for errors. Notifies customers and appropriate personnel of findings, adjustments, and recommendations, such as exchange of merchandise, refund of money, credit to customers' accounts, or adjustment to customers' bills. Reviews claims, adjustments with dealer, examines parts claimed to be defective and approves or disapproves of dealer's claim. Examines weather conditions, number of days in billing period, and reviews meter accounts for errors which might explain high utility charges. Writes work order. Prepares reports showing volume, types, and disposition of claims handled. Compares merchandise with original requisition and information on invoice and prepares invoice for returned goods. Orders tests to detect product malfunction and determines if defect resulted from faulty construction.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 4222

Title Contact Centre Information Clerks

4225.9900

Inquiry Clerks, Other

Receptionist and Information Clerks, other include Clerks who receive clients or patients, provide information and make appointments on behalf of various establishments including hospital, medical or dental surgeries not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4222

Title Contact Centre Information Clerks

Family 4226

Receptionist (General)

Receptionists (General) receive and welcome visitors, clients, or guests and respond to enquiries and requests including arranging for appointments.

4226.0100

Reception Clerk/Front Desk

Executive/Receptionist

Reception Clerk; Receptionist receives and attends visitors, clients or customers in institutions or offices, for guiding them to proper places or sections and to arrange interviews, appointments etc. with officials concerned. Receives visitors and enquires purpose of their visit, nature of business to be transacted, person or persons to be interviewed, etc. Supplies required information and directs them to person or place concerned. Writes names and addresses of visitors, purpose of visit

and obtains their signature on the visitor's book for record. Contacts officials concerned in person or over phone and arranges interviews. May attend to general clerical duties in office. May type letters and other correspondence. May operate telephone switch board.

ISCO 08 Unit Group Details:

Code 4222

Title Contact Centre Information Clerks

4226.0201

Showroom Hostess/ Host

Showroom Hostess/Host is responsible for handling the front office work. The individual attends to the customers and co-ordinates response to their queries.

Qualification Pack Details:

QP NOS Reference ASC/Q1103

QP NOS Name Showroom Hostess
/Host

NSQF Level 3

ISCO 08 Unit Group Details:

Code 4222

Title Contact Centre Information Clerks

Family 4227

Survey and Market Research Interviewers

Survey and Market Research Interviewers interview people and record their responses to survey and market research questions on a range of topics.

Family 4229

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Client Information Worker, Not Elsewhere Classified

This unit group includes Client Information Workers not included elsewhere in Group 422, Client Information Workers. For instance, it includes workers who obtain and process information from clients needed to determine eligibility for services.

Sub Division 43

Numerical and Material Recording Clerks

Numerical Clerks and Material Recording Clerks obtain, compile and compute accounting, bookkeeping, statistical, financial, and other numerical data, and take charge of cash transactions incidental to business matters. Some occupations classified here keep records of goods produced, purchased, stocked, dispatched, and of materials needed at specified production dates, or keep records of operational aspects and coordinate the timing of passenger and freight transport.

Tasks performed by workers in this sub-major group usually include helping with accounting and bookkeeping records and computations; calculating unit production costs; calculating wages and in some cases preparing wage packets and paying wages, taking charge of cash transactions incidental to the business; obtaining, compiling and computing statistical or actuarial data; performing clerical tasks relating to the financial transactions of an insurance establishment, bank or similar establishment; recording produced, stocked, ordered and dispatched goods; recording production materials received, put into

stock or issued; computing quantities of the production materials required at specified dates and helping with preparation and checking of production operation schedules; keeping records of operational aspects and co-ordinating the timing of passenger and freight transport.

Occupations in this Sub Division are classified into the following Groups:

431 Numerical Clerks
432 Material Recording and Transport Clerks

Group 431 Numerical Clerks

Numerical Clerks obtain, compile and compute accounting, bookkeeping, statistical, financial, and other numerical data, and take charge of cash transactions incidental to business matters.

Occupations in this Group are classified into the following Families:

4311 Accounting and Bookkeeping Clerks
4312 Statistical Finance and Insurance Clerks
4313 Payroll Clerks

Family 4311 Accounting and Bookkeeping Clerks

Accounting and Bookkeeping Clerks compute, classify, and record numerical data to keep financial records complete. They perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records.

4311.0101**Book Keeper General/Accounts Executive (Recording and Reporting)**

Book Keeper, General maintains up-to-date and systematic accounts of financial transactions of an institution in prescribed records. Receives bills, vouchers and other papers concerning cash transactions from institutions, verifies correctness of documents and posts relevant entries in records and ledgers. Checks entries, makes necessary calculations and balance books at regular intervals. Complies periodical statements of extracts from ledgers to show total amount of receipts and expenditure of institution, profits earned or loss incurred, etc. Compiles list of outstanding dues for realization. Files various connected documents in proper order under appropriate heads. Assists Auditor in preparing balance sheets of company. Sends statement of accounts of customers periodically. Attends to related correspondence in office. May use calculating machines. May help Cashier, General in preparing pay rolls of staff and workers and assist in disbursing payments to them.

Qualification Pack Details:

QP NOS Reference	BSC/Q1001
QP NOS Name	Accounts Executive (Recording and Reporting)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	4311
Title	Accounting and Bookkeeping Clerks

4311.0200**Bank Clerk**

Bank Clerk maintains various account books and documents in banks and attends to banking business relating to current accounts, savings bank accounts, fixed deposits, etc. Posts necessary entries as and when transactions take place in account books, to keep account up-to-date. Receives applications for loans. Advances, foreign exchange, etc., scrutinizes them for correctness and eligibility and forwards them to superiors for orders. Sorts out bills and cheques received, and sends them to concerned Ledger Clerks for posting necessary entries. Prepares demand drafts for amounts deposited with bank and forwards them to superiors for signatures. Renders periodical statement of accounts to parties or clients. Attends to related correspondence. Prepares daily statement at close of day's work showing different transactions attended to. May use calculating machine for totalling of figures.

ISCO 08 Unit Group Details:

Code	4311
Title	Accounting and Bookkeeping Clerks

4311.0300**Ledger Clerk**

Ledger Clerk; Ledger Keeper maintains record of financial transactions in ledgers of clients, by making necessary entries in respect of daily transactions. Receives checks, bills and drafts from customers at counter. Ascertains balance at credit from records. Makes relevant entries in ledger and submits them for payment order. Attends to customers' queries. Receives bills, cheques, vouchers, etc. from cash section for making necessary entries in clients' ledger account regarding credits or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

debts, balance at credit, etc. Prepares abstract statements from ledgers indicating day's transaction for tally by cash section. Calculates half yearly interest on customers' deposits and enters them in ledgers to make account up-to-date. Sends periodical statement of transactions made, opening and closing balances to customers for information. May operate calculating machines. May attend to routine correspondence.

ISCO 08 Unit Group Details:

Code 4311

Title Accounting and Bookkeeping Clerks

4311.0401

Accounts Executive (Accounts Payable and Receivable)

Accounts Executive (Accounts Payable & Receivable) is a person responsible for maintaining the suppliers' accounts and makes authorized payments to them on behalf of the company, raises bills on its customers, receives and acknowledges collections on behalf of the company, keeps records, and enters the transactions into the books of accounts of the organization.

Qualification Pack Details:

QP NOS Reference BSC/Q0901

QP NOS Name Accounts Executive (Accounts Payable & Receivables)

NSQF Level 4

ISCO 08 Unit Group Details:

Code 4311

Title Accounting and Bookkeeping Clerks

4311.0500

Audit, Clerk

Audit Clerk assists Auditor in examining accounts and comparing vouchers, counterfoils, etc. with entries in cash book, ledger, pass-book, etc. concerning various financial or business transactions. Verifies entries of cash books, ledger accounts, stores register, etc. with supporting bill vouchers to ensure accuracy. Ensures that prior sanction from competent authority exists for all financial transactions of company or office. Checks and ensures that required certificates are recorded in cash and accounts registers. Brings out discrepancies to the notice of superiors. May use calculating or adding machines.

ISCO 08 Unit Group Details:

Code 4311

Title Accounting and Bookkeeping Clerks

4311.0600

Clerk, Cost Accounting

Clerk, Cost Accounting assists Cost Accountant in calculating production or operational cost for use in framing estimates and preparing profit and loss statement. Receives various records from various sections to study cost of material, labour charges, cost of equipment used, overhead charges, etc. Works out cost per unit and for whole operation giving total expenditure incurred, number of items produced, etc. to enable superior officers to fix selling price, and also to determine profit and loss position of concerns. Presents tabulated data in prescribed form or manner to superiors. May operate calculating machine.

ISCO 08 Unit Group Details:

Code 4311

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Accounting and Bookkeeping Clerks

4311.0700 Bill and Accounts Collector

Bill and Account Collector locates and notifies customers of delinquent accounts by mail, telephone, or personal visit to solicit payment. Duties include receiving payment and posting amount to customer's account; preparing statements to credit department if customer fails to respond; initiating repossession proceedings or service disconnection; keeping records of collection and status of accounts. Receives payments and posts amounts paid to customer accounts. Locates and monitors overdue accounts, using computers and a variety of automated systems. Records information about financial status of customers and status of collection efforts. Confers with customers by telephone or in person to determine reasons for overdue payments and to review the terms of sales, service, or credit contracts. Advises customers of necessary actions and strategies for debt repayment. Persuades customers to pay amounts due on credit accounts, damage claims, or non-payable checks, or to return merchandise. Sorts and files correspondence, and performs miscellaneous clerical duties such as answering correspondence and writing reports. Performs various administrative functions for assigned accounts, such as recording address changes and purging the records of deceased customers. Arranges for debt repayment or establish repayment schedules, based on customers' financial situations.

ISCO 08 Unit Group Details:

Code 4311

Title Accounting and Bookkeeping Clerks

4311.0801 Rubber Nursery Office Assistant

Nursery Office Assistant deals with all office work in connection with Rubber Nursery Management. Is assigned with all clerical work, maintenance of registers and files, preparation of statements, letters, other documents for correspondence, maintenance of accounts, cash book etc.

Qualification Pack Details:

QP NOS Reference	RSC/Q0934
QP NOS Name	Rubber Nursery Office Assistant
NSQF Level	4

ISCO 08 Unit Group Details:

Code 4311
Title Accounting and Bookkeeping Clerks

4311.9900 Accounting and Bookkeeping Clerks, Others

Accounting and Bookkeeping Clerks, other include Clerks who help with accounting and bookkeeping records and computations not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4311
Title Accounting and Bookkeeping Clerks

Family 4312

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Statistical Finance and Insurance Clerks

Statistical, Finance and Insurance Clerks obtain, compile and compute statistical or actuarial data or perform clerical tasks relating to the transactions of insurance establishments, banks and other financial establishments.

4312.0100 Statistical Clerks

Statistical Clerk tabulates data and computes statistics for use in statistical studies, using calculator and adding machine: Compiles statistics from source materials, such as production and sales records, quality control and test records, personnel records, timesheets, survey sheets, and questionnaires. Assembles and classifies statistics, following prescribed procedures. Computes statistical data according to formulas, using calculator. May compile and compute statistics, using computer. May verify authenticity of source material.

ISCO 08 Unit Group Details:

Code 4312
Title Statistical Finance and Insurance Clerks

4312.9900 Statistical Finance and Insurance Clerks, Others

Statistical and Financial Clerks, Other include workers who obtain, compile and compute statistical or actuarial data or perform clerical tasks relating to the transactions of a bank and other financial establishments not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4312
Title Statistical Finance and Insurance Clerks

Family 4313 Payroll Clerks

Payroll Clerks collect, verify and process payroll information and compute pay and benefit entitlements for employees within a department, company or other establishment.

4313.0101 Accounts Clerk/Accounts Executive (Payroll)

Accounts Clerk keeps day to day accounts for financial transactions and maintains various book-registers and records relating to them. Receives bills, vouchers and other documents concerning purchases, sale or articles etc. and checks accuracy. Prepares pay and allowances bills of staff for encashment and other sundry statements for records. Calculates income tax, Sales-tax, provident fund deductions etc. and enters in bills or pay rolls. Checks whether financial transactions of institution conform to prescribed financial rules and regulations. Tabulates and prepares periodical expenditure statements. May maintain provident fund accounts of staff showing monthly contributions, withdrawals, etc. May prepare balance sheets and annual budget statements for office or institution. May operate calculating machine. May type letters, statements, etc. May handle cash in office or institution. May perform duties of Ledger Clerk or Bookkeeper.

Qualification Pack Details:

QP NOS Reference BSC/Q1201

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Accounts Executive (Payroll)
NSQF Level	4

dates, or keep records of operational aspects and co-ordinate the timing of passenger and freight transport.

ISCO 08 Unit Group Details:

Code	4313
Title	Payroll Clerks

Occupations in this Group are classified into the following Families:

4321 Stock Clerks
4322 Production Clerks
4323 Transport Clerks

Family 4321 Stock Clerks

Stock Clerks maintain records of goods produced and production materials received, weighed, issued, dispatched or put into stock.

4321.0100 Store Keeper

Store Keeper; Store Clerk Godown Keeper; Warehouse-man receives stores and issues various types of goods, tools, equipment raw materials etc., and maintains record of each item. Checks incoming supplies against orders, bills or vouchers, identifies, weighs or measures and examines various items to ensure correct supply. Affixes or ties identity slips to items giving code numbers or marks. Enters details of goods received in stock registers. Maintains bin cards for each item indicating stock in hand. Ensures proper storing and preservation of goods. Issues stock on demand making necessary entries in registers and bin cards. Exercises physical check of stores periodically and tallies with stock registers. Renders to superiors periodical statements and reports showing position and condition of stocks. Makes requisition for replacement and further supply under

Qualification Pack Details:

QP NOS Reference	BSC/Q1101
QP NOS Name	Accounts Executive (Statutory Compliance)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	4313
Title	Payroll Clerks

Group 432 Material Recording and Transport Clerks

Material-Recording and Transport Clerks keep records of goods produced, purchased, stocked, dispatched, and of materials needed at specified production

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

advice of superiors. Supervises work of subordinates engaged in lifting goods.

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0101

Spare Parts Operations Executive

Spare Parts Operations Executive Level 3: A Spare part operation executive Level 3 packs, stores and maintains proper inventory of spare parts. The individual is responsible for proper labelling of spare parts to maintain easy retrieval.

Qualification Pack Details:

QP NOS Reference	ASC/Q1501
QP NOS Name	Spare Parts Operations Executive Level 3
NSQF Level	3

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0102

Inventory Clerk

Inventory Clerk in the Logistics industry is also known as Inventory Executive. Individuals in this role need to collect the stored items list, perform physical counting of goods, cross checking the physical count with the system numbers. Their responsibilities include locating missing items for reconciliation and preparing detailed reports for the management

Qualification Pack Details:

QP NOS Reference	LSC/Q2108
QP NOS Name	Inventory Clerk

NSQF Level	3
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ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0103

Inventory Manager

Inventory Manager is the person in charge of maintaining the stock of all inventory available in the jewellery retail store. Inventory Manager is also called as 'Inventory Controller', or 'Stock Manager'. The individual in the jewellery retailing store maintains record on all jewellery product including fresh incoming jewellery from factory, jewellery from customers for exchange sale, jewellery for repairs. The individual also places order for replenishment of jewellery products with vendor.

Qualification Pack Details:

QP NOS Reference	G&J/Q8402
QP NOS Name	Inventory Manager
NSQF Level	4

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0104

Storage Assistant

Storage Assistant transports the batch from mixing area to a designated storage area.

Qualification Pack Details:

QP NOS Reference	RSC/Q0104
QP NOS Name	Storage Assistant
NSQF Level	3

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0200

Store Distributor

Stores Distributor receives material from godown for delivery to indentors and receives returnable stores from consumers and return them to godown. Receives equipment, apparatus, tools, raw materials and other items of store, etc. from godown for delivery to consumers and checks each item with voucher entries. Issues to consumers indented articles of stores after counting or weighing each item. Collects from sections or authorised workers, store items such as tools, plant or other equipment for reconditioning, replacement or deposit in stores. Makes out lists of items received and delivers them to Store Keeper against acknowledgement. Maintains prescribed records indicating nature of materials received and issued. Sends periodical reports to superiors.

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0301

Stock Verifier

Stock Verifier; checks all items of stores tools, equipment, plants, etc. and verifies them with entries in records. Visits godowns, ware-houses situated in different places. Checks registers maintained at stores or godowns to find out balance of stock in hand on day of inspection. Counts physically various items of stores, tools, equipment, plants, etc. to tally with stock registers. Ensures

that precautionary measures were observed in storing different items. Ensures that methods followed in receipt and issue of stores, indent of stores, maintenance of records, etc. are according to instructions. Prepares inspection reports and submits to superiors pointing out shortages and damages of items and suggesting precautionary measures.

Qualification Pack Details:

QP NOS Reference	ELE/Q3401
QP NOS Name	Material Inspector
NSQF Level	4

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0302

Incoming Inspection Technician

Incoming Inspection Technician is also called, 'Incoming Material Inspector', the Incoming Inspection Technician checks quantity and specifications of components, parts and modules received from vendors. The individual at work receives components, modules and parts shipped by suppliers to the manufacturing facility. Once the incoming material has been received, the individual checks the quantities and lots delivered and their specification against the order.

Qualification Pack Details:

QP NOS Reference	ELE/Q6401
QP NOS Name	Incoming Inspection Technician
NSQF Level	3

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

4321.0401

Manager-Stores Operation

Manager-Stores Operation: Individuals at this job need to manage all aspects of material viz. safe receipt, storage-stock, retrieval and issue/dispatch for the manufacturing or Logistics processes of an organization adhering to the laid down SOP and schedule requirements.

Qualification Pack Details:

QP NOS Reference	ASC/Q6104
QP NOS Name	Manager-Stores Operation Level 5
NSQF Level	5

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0402

Spare Parts Operations In Charge

Spare Parts Operations In Charge is the overall in charge of the spare parts premises to ensure profitability and adherence to systems and processes across planning, procurement and supply of spares through co-ordination with both internal and external stakeholders. The individual also supervises and evaluates performance of the manpower engaged in the spare parts office.

Qualification Pack Details:

QP NOS Reference	ASC/Q1503
QP NOS Name	Spare Parts Operations In Charge
NSQF Level	7

ISCO 08 Unit Group Details:

Code	4321
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Title	Stock Clerks
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4321.0501

Store Ops Assistant

Store Ops Assistant: Individuals in this position receive, move, store and deliver products whilst working cordially within the team and retail organization.

Qualification Pack Details:

QP NOS Reference	RAS/Q0101
QP NOS Name	Store Ops,
Assistant Store Ops	
NSQF Level	1

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0601

Warehouse Picker

Warehouse Picker in the Logistics industry is also known as Picker, Floor Staff, Warehouse Associate. Individuals in this role need to pick items from storage. Individuals are responsible for picking items according to an inventory list. Additional responsibilities could at times include loading and unloading cargo, labelling, re-packaging items and documenting cargo that has been moved. The difference in tasks performed under the picker role thus varies according to the volume of operations, however the core function of the role is to pick items from storage and ensure they are ready to be sent out.

Qualification Pack Details:

QP NOS Reference	LSC/Q2102
QP NOS Name	Warehouse Picker
NSQF Level	3

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0602

Warehouse Binner

Warehouse Binner in the Logistics industry is also known as Binner, Floor Staff, Warehouse Associate. Individuals in this role need to bin items to put away into storage. Individuals are responsible for binning items according to an inventory list. Additional responsibilities could at times include moving cargo, re-packaging items and documenting cargo that has been moved. The difference in tasks performed under the Binner role thus varies according to the volume of operations, however the core function of the role is to bin items and put away into storage.

Qualification Pack Details:

QP NOS Reference	LSC/Q2105
QP NOS Name	Warehouse Binner
NSQF Level	3

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0603

Warehouse Packer

Warehouse Packer in the Logistics industry is also known as Packer, Floor Staff, Warehouse Associate. Individuals in this role need to pack items that have been picked or require binning. Individuals are responsible for packing items that require additional pre-packing or outbound packaging.

Additional responsibilities could at times include loading and unloading cargo,

labelling, re-packaging items and documenting cargo that has been moved. The difference in tasks performed under the Packer role thus varies according to the volume of operations, however the core function of the role is to pack items according to the nature of the product either for storage or transportation.

Qualification Pack Details:

QP NOS Reference	LSC/Q2303
QP NOS Name	Warehouse Packer
NSQF Level	3

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0604

Kitting and Labelling Executive

Kitting and Labelling Executive in the Logistics industry is also known as Kitter, Labeller, Warehouse Associate and Kitting Executive. Individuals in this role need to collect components required to make one complete product, verify this with the bill of materials and pack them. Their responsibilities include labelling the packed kit for easy identification.

Qualification Pack Details:

QP NOS Reference	LSC/Q2304
QP NOS Name	Kitting and Labelling Executive
NSQF Level	2

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.0701

Warranty Processor

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Warranty Processor co-ordinates warranty claims and parts/aggregates replaced under warranty under supervision. The individual also keeps track of storage and retrieval of the failed parts/aggregates (in case of any quality checks/audits) along with disposal to be done. The individual is also responsible for uploading the claims on the system.

Qualification Pack Details:

QP NOS Reference	ASC/Q1603
QP NOS Name	Warranty Processor
NSQF Level	4

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

4321.9900

Stock Clerks, Other

Stock Clerks, other include clerks who maintain records of goods produced and production materials received, weighed, issued, dispatched or put in to stock not elsewhere classified.

Qualification Pack Details:

QP NOS Reference	
QP NOS Name	
NSQF Level	

ISCO 08 Unit Group Details:

Code	4321
Title	Stock Clerks

Family 4322

Production Clerks

Production Clerks compute quantities of materials required at specified dates for manufacturing, construction and similar production programmes, and prepare and check production operation schedules.

4322.0101

Inventory Manager (Wholesale)

Also known as the Storekeeper, the Wholesale Inventory Manager maintains records of gemstone inventory of the organization at any given point of time. The individual at work maintains stocks of gemstones at a designated place and records its movement within the organization, up to dispatch.

Qualification Pack Details:

QP NOS Reference	G&J/Q7102
QP NOS Name	Inventory Manager (Wholesale)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	4322
Title	Production Clerks

4322.0201

Junior Rubber Technician/Technical Assistant

Junior Rubber Technician/Technical Assistant is required to co-ordinate with team members and assist the operators/supervisors to carry out activities as per the production processes of the company. They should understand the importance of the activity/task undertaken by them in the manufacturing processes and support the operators/supervisors to ensure that set standards are achieved within the work area.

Qualification Pack Details:

QP NOS Reference	RSC/Q0831
QP NOS Name	Junior Rubber Technician/Technical Assistant

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 3

ISCO 08 Unit Group Details:

Code 4322
Title Production Clerks

Family 4323

Transport Clerks

Transport Clerks keep records of operational aspects and co-ordinate the timing of train, road and air passenger and freight transport, and prepare reports for management.

4323.0100 **Yard Master, Railway**

Yard Master, Railway supervises breakup of incoming goods trains in railway yard, marshalling of new trains from relocated waggons, and expeditious movement out of yard of newly formed trains. Makes arrangements for reception and despatch of goods train into and from goods yard, after ensuring that points are correctly set and locked and line is clear. Checks incoming waggons so that they are properly labelled, seals are intact, and identification numbers are correctly recorded by clerk. Directs placement and removal of damaged stock and waggons from sick line. Sorts out waggons according to destination and ensures that Shunter forms goods trains as per marshalling order. Ensures that waggons containing fresh fruits and livestock are moved quickly. Keeps record of arrival and departure times of goods trains, detention of waggons, time taken for shunting and movement of rolling stock. Supervises weighing of wagon loads on weigh bridge. Informs Section Controller position

of waggons in yard and readiness of goods train. May substitute for any of his subordinates when necessary. May perform duties of Station Master when required.

ISCO 08 Unit Group Details:

Code 4323
Title Transport Clerks

4323.0200

Head Train Recorder

Head Train Recorder; Head Number Taker; Head Trains Clerk supervises work of Trains Clerk engaged in recording movement of incoming and outgoing passenger coaches, empty or loaded goods waggons and stationary stock in yard. Ensures that Trains Clerk attends to incoming or outgoing trains and records time of arrival and departure of trains, and numbers of coaches to Section Controller and checks each loaded wagon to ensure that they are properly levelled and riveted. Checks statement of movement of rolling stock to find out detention and cause thereof. Suggests remedial measures for quick movement of waggons.

ISCO 08 Unit Group Details:

Code 4323
Title Transport Clerks

4323.0300

Traffic Regulator, Tram

Traffic Regulator, Tram regulates tram traffic at important junctions by adding short trips and delaying or speeding up services. Marks time of arrival, and departure of trams and records name or number of Driver and Conductor. Records destination, trip mileage, or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

irregular running, etc. on mileage card and writes opening ticket number of first ticket sold (to indicate number of tickets sold on previous trip) and time of arrival, departure and destination of trip on conductor's ticket memo. Compensates for irregular running of tram cars by arranging short-trips and delaying or speeding up services. Keeps change for distribution to Conductors to facilitate sale of tickets. Takes charge of lost items handed over by Conductors and Drivers and forwards them to Depot Starter. Maintains record of tickets. May keep relief register of Drivers and Conductors.

ISCO 08 Unit Group Details:

Code 4323
Title Transport Clerks

4323.0400

Controller, Tram

Controller, Tram controls and supervises operation of tram services. Visits depot at beginning and end of duty to supervise turn out and stabling of trams. Checks attendance of supervisory and line staff, arranges substitutes for absentees and forwards statement of attendance to time-keeping department. Ensures running of tram cars according to schedule. Receives information on road traffic and takes measures to ensure smooth service. Rushes to break-down points and clears line with help of break down vans, if necessary. Visits heavy loading points during peak hours and arranges to clear traffic by adding additional tram cars or diverting service from one route to another. Makes suggestions to Divisional Heads for improvement and extension of tram services. May drive tram car in emergency.

ISCO 08 Unit Group Details:

Code 4323
Title Transport Clerks

4323.0500

Traffic Time Table Inspector, Tram

Traffic Time Table Inspector, Tram prepares schedules for running of trams, allocation of duties to staff and ensures their implementation. Examines old schedules, complaints or suggestions received for deficiencies in working, need for introducing more trams or curtailing service on to less important routes. Recommends changes in schedules indicating changes in routes and number of trams plied on them. Prepares revised duty charts for running staff and compiles mileage and fare tables. Attends to enquiries from public in connection with timings, fares, etc.

ISCO 08 Unit Group Details:

Code 323
Title Transport Clerks

4323.9900

Transport Clerks, Other

Transport Clerks, other include clerks who keep records and operational aspects and co-ordinate the timing of train, road and air passenger and freight transport not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4323
Title Transport Clerks

Sub Division 44

Other Clerical Support Workers

Other clerks perform clerical duties in newspapers, courts, libraries and post

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

offices, file documents, prepare information for processing, maintain personnel records, check material for consistency with original source material and write on behalf of illiterate persons. Performed by workers in this sub-major group usually include: recording information regarding acquisition, issue and return of library books; maintaining personnel records; classifying and filing various documents and other records; sorting, recording and delivering mail from post offices, as well as from or within an enterprise; coding; correcting proofs; performing a number of miscellaneous clerical duties; writing on behalf of persons who are unable to read and write.

Occupations in this Sub Division are classified into the following Groups:

441 Other Clerical Support Workers

Group 441 Other Clerical Support Workers

Other Clerks perform clerical duties in newspapers, courts, libraries and post offices, file documents, prepare information for processing, check material for consistency with original source material, maintain personnel records and write on behalf of persons who are unable to read or write.

Occupations in this Group are classified into the following Families:

4411 Library Clerks
4412 Mail Carriers and Sorting Clerks
4413 Coding, Proof-Reading and Related Clerks
4414 Scribes and Related Clerks
4415 Filing and Copying Clerks

4416 Personnel Clerks
4419 Clerical Support Workers, Not Elsewhere Classified

Family 4411

Library Clerks

Library Clerks issue and receive library materials, sort and shelve books, sound and vision recordings, periodicals, journals, magazines and newspapers and provide general library information to library users.

4411.0100

Library Clerk

Library Clerk; Library Assistant complies records, sorts and shelves books, and issues and receives library materials, such as books, periodicals, films, newspapers, etc., Records identifying data and due date on cards by hand or stamping machine to issue books to patrons. Inspects returned books for damage, verifies due date, and computes and receives overdue fines. Reviews records to compile list of overdue books and issues notices to borrowers. Sorts books, publications, and other items according to classification code and returns them to shelves, files or other designated storage area. Locates books and publications for patrons. Issues borrower's identification card according to established procedures. Files cards in catalogue drawers according to prescribed system. Repairs books, using mending tape and paste and brush. Answers inquiries of non-professional

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

nature on telephone or in person and refers persons requiring professional assistance to Librarian. May type material cards, issue cards and duty schedules. May be designated according to type and branch of library in which worked or tasks performed.

ISCO 08 Unit Group Details:

Code	4411
Title	Library Clerks

4411.0200

Braille and Talking Books Clerk

Braille-and-Talking Books Clerk prepares braille and talking books for mailing to library patrons with visual impairment and receives books returned by patrons: Stamps issue date on book card to maintain record of location of borrowed books. Stamps due date on issue card and inserts card and returns mailing label in book pocket. Places books in mailing container and affixes address label to container, securing container with straps for mailing. Receives and examines returned books for damage, such as torn paper and scratched record surfaces. Stamps return date on book card. Shelves returned books alphabetically by author's name or by title.

ISCO 08 Unit Group Details:

Code	4411
Title	Library Clerks

4411.0300

Preservation Assistant, Archives

Preservation Assistant, Archives; maintains archival records in good and usable condition by air-cleaning, fumigating and repairing of damaged records. Collects books and records for arranging them in special racks. Coats

racks with chemical solution such as creosot, cresol, etc. to keep away insets, pests and moth. Sorts out books and records according to subject. Arranges records horizontally on shelves or specially built racks to prevent sagging and to eliminate strain on backings. Ties files or loose records between boards. Dusts shelves regularly by hand or by vacuum cleaner. Keeps place airy by opening windows frequently. Examines records periodically and removes damaged records for mending. Fumigates damaged records by placing them in loose form in special airtight boxes containing chemical crystals (dichlor benzene) to destroy insects, pests and larvae. May issue records. May mend damaged records and apply leather preservative mixture to leather bound volumes.

ISCO 08 Unit Group Details:

Code	4411
Title	Library Clerks

4411.9900

Library Clerks, Other

Library and Filing Clerks, other maintain library services or perform duties related to the filing and classification of records not elsewhere classified.

ISCO 08 Unit Group Details:

Code	4411
Title	Library Clerks

Family 4412

Mail Carriers and Sorting Clerks

Mail Carriers and Sorting Clerks perform sorting, recording, delivery and other duties in connection with mail services from post offices or related organizations,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

as well as from or within an establishment.

4412.0100 Mail Guard

Mail Guard, R.M.S. Mail Agent R.M.S. takes custody of mail bags, parcels, etc. from local mail vans and in-coming trains carrying mail at Railway Station and delivers them for onward despatch. Checks seals, labels for any tampering, prepares mail list of bags, parcels etc. to be transferred and obtains signatures of recipient. Reports irregularities concerning mail to superior officers. May perform other duties such as receipt, sorting and despatch of mailed articles in RMS office at Railway Stations. May travel in train to collect and deliver mail bags at intermediate station.

ISCO 08 Unit Group Details:

Code 4412

Title Mail Carriers and Sorting Clerks

4412.0200 Postman

Postman collects dak, parcels, registered and insured covers, V.P. articles, money orders etc., from post office and delivers them to addressees residing in his allocated area. Collects letters, registered covers, money orders, registered and unregistered parcels, V.P. articles, etc., from post office against receipt to deliver them to addressees. Keeps record of important letters, articles in register maintained by him. Sorts them according to street and house numbers. Plans route and arranges dak and articles accordingly. Delivers ordinary dak at respective addressees and registered letters, money

orders, V.P. articles to addressee are doubtful. Receives and records payment of bearing or under paid letters and V. P. articles. Deposits acknowledgement receipts, money collected and undelivered articles in post office. May collect mail from letterboxes. May sort out incoming mail for distribution to postmen. May supply money order and acknowledgement forms to public on request.

ISCO 08 Unit Group Details:

Code 4412

Title Mail Carriers and Sorting Clerks

4412.0300 Village Postman

Village Postman collects letters, parcels, registered and insured covers, telegraphic and ordinary money orders, V. P. articles, etc., from post office and delivers them to addressees in villages. Collects dak such as letters, money orders, parcels, registered and insured letters etc. of his beat from post office against receipt. Checks and sorts them according to villages and enters them in his book. Arranges dak according to route for delivery. Delivers ordinary mail at addressees given and important dak such as registered letters, money orders, parcels, etc. to addressees, after obtaining acknowledgements or receipts from them. Takes signatures of witnesses for payment of money order when identity of addressee is not known or doubtful. Receives postal charges and maintains records of payment received for bearing or underpaid letters and V.P. articles. Deposits acknowledgement receipts, money collected and undelivered articles in post office. Collects mail from letter boxes and delivers them to post office. Carries postage stamps of limited value and sells them in villages authorised

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

by postal authorities. Deposits sale proceeds in post office on return. Supplies money order forms, acknowledgement slips and other postal forms to villagers on visit. May accept registered letters for posting and issue receipts.

ISCO 08 Unit Group Details:

Code 4412

Title Mail Carriers and Sorting Clerks

4412.9900

Mail Carriers and Sorting Clerks, Other

Mail Carriers and Sorting Clerks, other include those clerks who perform sorting, recording, delivery and other duties in connection with mail services from post offices or related organizations not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4412

Title Mail Carriers and Sorting Clerks

Family 4413

Coding, Proof-Reading and Related Clerks

Coding, Proof-Reading, and Related Clerks convert information into codes, verify and correct proofs, and perform a number of miscellaneous clerical duties.

4413.0100
Coding Clerk

Coding Clerk converts routine items of information obtained from records into codes for processing by data typing or key punch units, using predetermined coding

systems. Records alphabetic, alphanumeric, or numeric codes in prescribed sequence manually on work sheet or margin on source document for transfer to punch cards or machine input tape. May classify material when classification is not readily discernible. May be designated according to trade name of computer system such as Coder, I.B.M; Coder, Census, etc.

ISCO 08 Unit Group Details:

Code 4413

Title Coding, Proof-Reading and Related Clerks

4413.0200

Proof-Reader

Proof Reader compares proof with manuscript as read out by Copy Holder, makes correction of errors, omissions, etc. in composing of proof, using standard symbols. May also mark or even correct mistakes in spelling, grammar etc. in manuscript.

ISCO 08 Unit Group Details:

Code 4413

Title Coding,
Proof-Reading and Related Clerks

4413.9900

Coding, Proof-Reading and Related Clerks, Others

Coding, Proof-Reading, and Related Clerks, other include clerks who convert information in to codes, verify and correct proofs, and perform a number of miscellaneous clerical duties not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4413

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Coding, Proof-Reading and Related Clerks

Family 4414

Scribes and Related Clerks

Scribes and Related Workers write letters and complete forms on behalf of illiterate persons.

4414.0100

Braille Transcriber, Hand

Braille Transcriber, Hand braille coder transcribes reading matter into braille for people with visual impairment using hand stylus: Reads copy and manipulates hand stylus to emboss special paper with various combinations of dots that characterize braille alphabet, using braille code form.

ISCO 08 Unit Group Details:

Code 4414

Title Scribes and Related Clerks

4414.9900

Scribes and Related Clerks, Other

Scribes and Related Clerks, other write letters and complete forms on behalf of literate and illiterate persons not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4414

Title Scribes and Related Clerks

Family 4415

Filing and Copying Clerks

Filing and Copying Clerks file correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order or according to the filing system used. They locate and remove material from file when requested and photocopy, scan or fax documents.

Family 4416

Personnel Clerks

Personnel Clerks maintain and update personnel records such as information on transfers and promotions, performance evaluations, employee leave taken and accumulated, salaries, qualifications and training.

4416.0101

Associate-HRO

Associate-HRO is responsible for performing transactional activities pertaining to various areas within HR such as personnel policies, practices, and procedures; employee benefits planning, communication, and administration; compensation systems planning; and wage and salary administration etc. They are also responsible for managing any day-to-day issues and queries related to their respective areas.

Qualification Pack Details:

QP NOS Reference SSC/Q2502

QP NOS Name Associate-HRO

NSQF Level 7

ISCO 08 Unit Group Details:

Code 4416

Title Personnel Clerks

Family 4419

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Clerical Support Workers, Not Elsewhere Classified

This family Covers Clerical Support Workers not classified elsewhere in division 4, Clerical support workers. For instance, the group includes, Correspondence Clerks, Press Clippers and Publication Clerks.

4419.0100 Publicity Assistant

Publicity Assistant prepares publicity materials for Government, business or other institutions and conducts visitors in information centre to popularise their products or achievements. Scrutinises newspapers and magazines and collects news and views relating to his employers' institution. Prepares press releases, feature articles, pamphlets, folders leaflet etc. for distribution to press and public. Sends pre-pared materials to Publicity Officer for approval. Arranges display of publicity posters or erection of hoardings at important public places. Receives visitors at information centre or exhibition and explains to them charts, models and other exhibits displayed. May attend to clerical work.

ISCO 08 Unit Group Details:

Code 4419
Title Clerical
Support Workers Not Elsewhere Classified

4419.0102 Business Correspondent

Business Correspondents are representatives of a bank, responsible for building awareness, sourcing customers. Business Correspondents are also

responsible for carrying out banking transactions for existing customers.

Qualification Pack Details:

QP NOS Reference	BSC/Q0301
QP NOS Name	Business Correspondent
NSQF Level	3

ISCO 08 Unit Group Details:

Code 4419
Title Clerical Support Workers Not Elsewhere Classified

4419.0200 Patwari

Patwari Lekhpal; Adhikari; Talathi maintains maps, records and registers of fields and crops of cultivators. Obtains survey maps, area by area, from land revenue department and maintains records and registers of owner-ship lease, area, taxes and other details of each plot. Prepares reports regarding crop conditions and financial circumstances of cultivators for loans, remissions, etc. Keeps record of important events in daily life of villagers in his range. May prepare electoral rolls and perform any other duty assigned to him such as collecting of land revenues, arranging seed and fertilizer distribution etc.

ISCO 08 Unit Group Details:

Code 4419
Title Clerical Support Workers Not Elsewhere Classified

4419.0300 Patrol, Irrigation

Patrol, Irrigation assesses canal dues and prevents unauthorised use of canal water within his beat. Collects details of irrigation facilities to be accorded to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

cultivators and opens lock gate to allow canal water to flow into plots of lands according, to schedules or payments made. Cuts off water supply after authorised flow and assesses canal dues to be paid. Patrols canal area within his beat to check unauthorised use of canal waters and reports such cases to appropriate authority. Maintains registers of water supplied and other details.

ISCO 08 Unit Group Details:

Code 4419
Title Clerical
Support Workers Not Elsewhere Classified

4419.0400

Bailiff

Bailiff attaches properties under orders of court of law. Receives attachment from court. Visits site of property to be attached. Arranges for publicity by beat of drum or otherwise, collects responsible witnesses of locality in whose presence attachment proceedings are conducted or inventory of attached property made. Accepts cash in lieu of attachment of moveable and immovable property if such provision is made in court's order. Executes decrees, realises fines and dues passed by court and auctions property. Deposits realised amount in court and submits report detailing cases of defaults.

ISCO 08 Unit Group Details:

Code 4419
Title Clerical
Support Workers Not Elsewhere Classified

4419.0500

Office Boy/Peon

Office Boy/Peon performs variety of unskilled miscellaneous tasks in office or establishment such as carrying of papers

and files from one section to another, delivering of local dak, going out for local purchases, depositing bills in treasury, bank, etc., running errands. Attends to superiors and carries out assigned duties. Delivers local dak to addressees. Assists Despatch Clerk in fastening envelops, affixing postage stamps and posting of mail. May operate simple office machines like photocopying machines, envelope stamping machine, etc. and execute orders such as printing, duplicating, etc. Keep record of stock and machineries. Supervises the staff posted under him.

ISCO 08 Unit Group Details:

Code 4419
Title Clerical Support Workers Not Elsewhere Classified

4419.0600

Daftry

Daftry; Attender supplies stationery articles to officials, prepares envelopes, weighs and affixes postage stamps on outgoing dak, binds registers, loose files, books etc. and performs other miscellaneous work. Sorts out files according to number or other distinguished marks. Helps Record Clerk in stitching papers or typing bundles and marking them. Arranges files in racks or other special receptacles in prescribed order or as instructed by Record Clerk. Takes inventory of stationery items received from central stores and helps Record Clerk in getting them entered in registers. Collects indent from Record Clerk and supplies stationery articles or files to indentors against acknowledgement. Weighs covers of outgoing dak, affixes correct stamps on them and fastens them for posting. May prepare new envelopes from rough paper and paste economy slips. May operate

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

duplicating machine and cyclostyle required number of copies. May supervise work of peons. May attend to any other duties allotted.

ISCO 08 Unit Group Details:

Code 4419

Title Clerical Support Workers Not Elsewhere Classified

4419.0800

Process Server

Process Server serves summons or other processes of law issued by court, on parties concerned for appearance in courts or for realization of dues etc. Receives list of summons and processes to be served on parties from Reader, Court or from other competent authority. Serves summons or process on parties by delivering one copy of summons after taking acknowledgement on second copy. Affixes copy of summons or processes at prominent public places, doors or houses of concerned parties, if parties refuse to accept summons or processes. Deposits copies of summons served together with unserved summons with reasons for non-service to competent authority. May attend to court duties and call parties or litigants into court by calling their names. May perform duties of peon.

ISCO 08 Unit Group Details:

Code 4419

Title Clerical Support Workers Not Elsewhere Classified

4419.9900

Clerical Support Workers, Other

Clerical Support Workers, Other includes other institutional based personal care workers who provide child care and help

in looking after school children, perform various tasks in order to assist medical and nursing professionals and associate professionals in their duties at hospitals and other institutions not elsewhere classified.

ISCO 08 Unit Group Details:

Code 4419

Title Clerical Support Workers Not Elsewhere Classified

Division 5

Service and Sales Workers

Service and Sales Workers provide personal and protective services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or demonstrate and sell goods in wholesale or retail shops and similar establishments, as well as at stalls and on markets.

Tasks performed by service and sales workers usually include: organizing and providing services during travel; housekeeping; preparing and serving of food and beverages; caring for children; providing personal and basic health care at homes or in institutions, as well as hairdressing, beauty treatment and companionship; telling fortunes; embalming and arranging funerals; providing security services and protecting individuals and property against fire and unlawful acts; enforcing of law and order; posing as models for advertising, artistic creation and display of goods; selling goods in wholesale or retail establishments, as well as at stalls and on markets; demonstrating goods to potential customers. Supervision of other workers may be included.

Occupations in this Division are classified into the following Sub Divisions:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

51	Personal Service Workers
52	Sales Workers
53	Personal Care Workers
54	Protective Service Workers

Sub Division 51

Personal Service Workers

Personal Service Workers provide personal services related to travel, housekeeping, catering, child and personal care.

Tasks performed by workers in this sub-major group usually include: organizing and providing of services during travel; housekeeping; preparing and serving food and beverages; providing personal and basic health care at homes or in institutions, as well as hairdressing, beauty treatment and companionship; telling fortunes; embalming and arranging funerals; Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

511	Travel Attendants, Conductors and Guides
512	Cooks
513	Waiters and Bartenders
514	Hairdressers, Beauticians and Related Workers
515	Building and Housekeeping Supervisors
516	Other Personal Services Workers

Group 511

Travel Attendants, Conductors and Guides

Travel Attendants, Conductors and Guides provide various personal services in

connection with travelling by aircraft, train, ship, bus or other vehicle, and escorting individuals and groups on travel tours, sightseeing visits and excursions.

Occupations in this Group are classified into the following Families:

5111 Travel Attendants and Travel Stewards

5112 Transport Conductors

5113 Travel Guides

Family 5111

Travel Attendants and Travel Stewards

Travel Attendants and Travel Stewards ensure the comfort and safety of passengers, serve meals and beverages and render personal services, usually on aircraft and on-board ships. They may plan and co-ordinate housekeeping and social activities on ships.

5111.0100

Chief Steward, Ship/Chief Cook

Chief Steward, Ship supervises and co-ordinates activities in stewards department aboard passenger or cargo vessel to ensure comfort of passengers aboard ship. Supervises workers engaged in housekeeping and meal serving. Arranges space for shipboard recreation activities. Inspects passenger areas for cleanliness and observes services rendered by steward personnel for conformance to company standards. Collaborates with Chief Cook and Chief Passenger, vessel to plan menus. Requisitions stores such as food, sundries and furniture. Orders replacements for personnel leaving ship and authorises

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

overtime work. Estimates food costs, maintains necessary accounts and compiles supply, overtime and cost control records.

ISCO 08 Unit Group Details:

Code 5111

Title Travel Attendants and Travel
Stewards

5111.0200

Steward, Ship/Mess Man

Steward, Ship attends to general needs and comforts of passengers on board ship. Keeps cabins clean and in order, makes beds and changes used or soiled linen. Arranges material required by passengers in lounge or on deck such as chairs, rugs, etc. Serves meals, beverages in rooms when requested by passengers.

ISCO 08 Unit Group Details:

Code 5111

Title Travel Attendants and Travel
Stewards

5111.0300

Air Hostess

Air Hostess attends to comforts, convenience and general needs of passengers in aircraft. Ensures cleanliness of cabin, greets passengers boarding plane and guides them to their assigned seats. Helps passengers in fastening or fastens herself their seat belts before take-off and landing of aircrafts. Attends to requirements of passengers during flight such as reading material, cigarettes, etc., answers enquiries of passengers about schedule or route of plane and points out places of interests over which flight passes. Observes uneasy passengers and helps them in removing their

discomfort. Serves beverages, breakfast or meals during flight, administers medicine in minor ailments of passengers and consoles passengers when plane is in distress. Greets passengers when they leave plane at destination. May perform routine clerical duties.

ISCO 08 Unit Group Details:

Code 5111

Title Travel Attendants and Travel
Stewards

5111.0400

Flight Steward

Flight Steward, Flight Purser attends to physical comforts of passengers and takes care of cargo on international airplane flights. Checks cabin service items, sells liquor, beverage, cigarettes etc. to passengers; keeps account of seats and makes sleeper berths. May perform duties of Air Hostess if required.

ISCO 08 Unit Group Details:

Code 5111

Title Travel Attendants and Travel
Stewards

5111.0500

Aircraft Cargo Handling Supervisor

Aircraft Cargo Handling Supervisor directs ground crew in the loading, unloading, securing, and staging of aircraft cargo or baggage. Determines the quantity and orientation of cargo and computes aircraft centre of gravity. Calculates load weights for different aircraft compartments, using charts and computers. Distributes cargo in such a manner that space use is maximised. Accompanies aircraft as a member of the flight crew in order to monitor and handle cargo in flight. Brief

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

aircraft passengers on safety and emergency procedures.

ISCO 08 Unit Group Details:

Code 5111
Title Travel Attendants and Travel Stewards

5111.0600

Air Crew Member

Air Crew Member performs in-flight duties to ensure the successful completion of combat, reconnaissance, transport, and search and rescue missions. Performs operating of aircraft communications and detection equipment, including establishing satellite linkages; conducting pre-flight, in-flight, and post-flight inspections of on-board equipment; operating and maintaining aircraft in-flight refuelling systems; executing aircraft safety and emergency procedures; computing and verifying passenger, cargo, fuel, and emergency and special equipment weight and balance data; and conducting cargo and personnel drops.

ISCO 08 Unit Group Details:

Code 5111
Title Travel Attendants and Travel Stewards

5111.9900

Travel Attendants and Travel Stewards, Other

Flight Attendants and Travel Stewards, other include attendants on board of aircraft or ship who render personal services to ensure the comfort and safety of passengers, serve meals and beverages, or plan and co-ordinate housekeeping and social activities in the aircrafts and ships not elsewhere classified.

ISCO 08 Unit Group Details:

Code 5111
Title Travel Attendants and Travel Stewards

Family 5112

Transport Conductors

Transport Conductors check and issue tickets and ensure the safety and comfort of passengers on trains, trams, buses and other public transport vehicles.

5112.0100

Guard, Passenger Train

Guard, Passenger Train takes charge of express, mail, passenger or special train and is responsible for its movement and safety. Receives instructions and checks particulars and marshalling order of train. Examines signalling and lighting equipment such as side lights, tail lamp, tail disc, etc. Supervises loading of goods of mail before beginning trip, and maintains prescribed records. Directs movement of train by signalling Engine Driver with appropriate flag and light signals. Submits report at termination of each run and hands over charge to relieving Guard or Station Master. Ensures appropriate measures during accidents and emergencies to obtain medical and other aids. May work as Conductor Guard Railway and assist upper class passengers in obtaining berths and seats and attend to passengers' amenities. May issue certificates to passengers when necessary for issue or extension of tickets.

ISCO 08 Unit Group Details:

Code 5112
Title Transport Conductors

5112.0200**Guard, Goods Train**

Guard, Goods Train conducts goods train on scheduled route, ensuring safety of booked goods en route. Inspects waggons for effective sealing, locking arrangements, and proper marshalling order. Checks particulars about destination of train and takes charge. Reports any discrepancies to proper authorities for rectification. Informs Engine Driver of routes to be followed and stoppages involved. Signals for movement of train after obtaining clearance from Station Master. Supervises coupling and detachment of waggons and conducts loading and unloading of freight en route at various stops. Maintains prescribed records describing journeys undertaken, important incidents and difficulties involved. Hands over charge of train on completion of journey to proper officials.

ISCO 08 Unit Group Details:

Code 5112

Title Transport Conductors

5112.0300**Brakes Man, Railway**

Breaks Man, Railway; Luggage Guard segregates inflammable materials and if experienced in passenger or goods train to receive and deliver parcels, luggage and goods. Receives instruction from Guard, Passenger Train or Guard, Goods Train and checks train formation, couplings, lights and other safety devices. Receives parcels, goods, luggage etc. from Parcel Clerks or Goods Clerk and groups items in car by station of discharge to facilitate quick unloading. Exchanges signals with Guards and Drivers while operating in Ghat section trains. Maintains record of

items loaded and unloaded at each station. Informs Guard at rear of train when transfer of goods is completed. Assists Guard, Passenger Train in his duties. May assist sick, aged or lady passenger in entraining and detraining while on duty in mail, express or passenger train.

ISCO 08 Unit Group Details:

Code 5112

Title Transport Conductors

5112.0400**Conductor Guard, Railway**

Conductor Guard, Railway maintains reservation chart of passengers and looks after their general comforts such as finding their accommodation, arranging for their meals, cleanliness of compartments, etc.; in train. Receives copy of reservation chart of passengers from Reservation Clerk before start of journey. Directs passengers having reservation to their reserved seats or berths and prevents unauthorized passengers from entering compartment. Maintains list of vacant berths and allots them to passengers entertaining at way side stations. Assists passengers in arranging their meals or lodging in rest-rooms at important stations where such facilities are provided by railways. Hands over reservation charts and papers to relieving Conductor at his destination station. May look after invalid, sick and lady passengers travelling singly during night. May take steps to avoid overcrowding in compartments. May arrange supply of linen and bedding to upper class passengers. May awake or remind passengers to alight at their destination station during night. May assist Guard, Passenger Train in issuing certificate to passengers for issue or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

extension of tickets. May report to appropriate authority any complaint which he is unable to remedy immediately.

ISCO 08 Unit Group Details:

Code	5112
Title	Transport Conductors

5112.0500

Ticket Collector, Railway

Ticket Collector, Railway examines and collects tickets of passengers and checks excess luggage or unauthorized articles. Collects duty chart from Station Master and reports for duty in prescribed uniform displaying identification badge and takes position at gate or platform as required. Checks tickets from persons entering or leaving platform. Clips tickets of incoming passengers boarding trains and collects tickets from outgoing passengers as appropriate. Checks excess luggage and unauthorized article carried by passengers. Collects ticket fares or excess luggage charges adding amount of penalty as per rules and issues fare receipts. Prepares statement of money collected and deposits cash with Booking Clerk. Prepares charge sheet and hands over to Railway Police for prosecution of passengers refusing to pay railway dues. Checks and verifies badly dated or undated and blank paper tickets and maintains their records. Hands over luggage, horse, carriage and dog tickets if any to Parcel Clerk. Remains acquainted with traffic rules and regulation. Prepares necessary reports and returns, submits them as prescribed and performs other duties as detailed. May get reservation labels fixed on air conditioned, I and II class sleeping compartments and reserved seats and also guide passengers. May attend to public enquiries, reserve seats

before departure of trains and indicate running of trains on notice board. May check and turn out beggars and unauthorized hawkers from platform.

ISCO 08 Unit Group Details:

Code	5112
Title	Transport Conductors

5112.0600

Travelling Ticket Examiner, Railway

Travelling Ticket Examiner, Railway checks and examines tickets of passengers in running trains. Collects duty chart from supervisor in charge and works according to programme. Reports for duty at scheduled time in prescribed uniform displaying identification badge. Checks and signs tickets of passengers from compartment to compartment, keeps eye on excess luggage, contraband and unauthorized goods carried, if any and collects ticket fares or luggage charges with or without penalty as per rules. Deposits money collected at stations of his beat as prescribed. Hands over passengers who refuse to pay railway dues, to Station Master or Ticket Collector for prosecution etc. Checks and confiscates badly dated or undated tickets and prepares their statement. Maintains daily trip report showing details of trains and carriages checked, passengers charged irregularities noticed and names of stations where cash is deposited. Extends help and protection to passengers when sought. May carry light weighing apparatus through Scale Porter to weight luggage in the running train. May travel in sleeper class and look after reservation of berths and seats. May attend to public enquiries.

ISCO 08 Unit Group Details:

Code	5112
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Transport Conductors

5112.0700

Ticket Examiner, Motor Transport

Ticket Examiner; Ticket Checker; Assistant Traffic Inspector (Motor Transport) checks and examines tickets of passengers on buses and supervises work of Bus Conductors, Checking Inspector and Drivers. Selects route and boards any bus on route or within allotted area. Checks way bill and tally it with tickets. Prevents overloading and checks tickets of passengers to ensure that nobody is travelling without ticket or exceeding his journey. Checks excess luggage gets it charged as per rules and ensures proper recording of trip sheets, invoice and other records of vehicle. Supervises and guides Conductors in discharge of their duties. Checks over-speeding and driving habits of Drivers and ensures that buses are running to schedule and traffic rules are observed. Notes irregularities or malpractices and also useful information about line staff or passengers or others in connection with transport and reports them to the authorities. Maintains necessary records, attends to investigation of accidents and submits daily trip report. May check cash with Conductor to prevent excess charging and malpractices.

ISCO 08 Unit Group Details:

Code 5112

Title Transport Conductors

5112.0800

Passenger Guide, Railway

Passengers Guide, Railway guides and assists passengers travelling in lower class compartments in finding accommodation, purchasing tickets, boarding and changing

correct trains and availing of passenger amenities provided at railway stations. Selects vantage position at railway station and follows movement of passenger traffic to locate individuals in difficulties and provides them information and guidance about movements, timings of trains booking counter, etc. Ensures that waiting halls, platforms, and carriages in trains are kept neat and tidy. Reports defects in carriage fitting such as electrical, watering sanitary, safety devices, etc. to train examining staff for rectification. Intervenes in disputes between porters and passengers when necessary. Reports cases requiring assistance of police to Station Master, Railway. May arrange supply of invalid chairs to sick passengers on requisition. May also investigate complaints of excess charging by Booking Clerks.

ISCO 08 Unit Group Details:

Code 5112

Title Transport Conductors

5112.0900

Conductor, Tram

Conductor Tram collects fares, issues tickets, conducts running of tram cars on scheduled routes by signalling to Tram Car Driver to start or stop as necessary. Receives instructions from Time Keeper at depot. Collects bill and tickets from Cashier and displays destination board in car. Co-operates with Tram Driver in maintaining time schedule. Checks interior of tram car, seats, electric lights, fans, first aid box, etc. and ensures cleanliness inside car. Signals Driver to start tram. Regulates boarding of passengers ensuring that tram is not over-loaded. Collects fares and issues tickets. Signals to Driver to stop Tram Car to permit passengers to alight or board tram at

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

scheduled stoppages. Assists passengers and maintains order in tram car. Renders first-aid to passengers in case of accident. Checks car after each trip and deposits left articles if any with Depot Starter. Verifies entries made by Starter on ticket memo and mileage card at end of each trip. May maintain simple records.

ISCO 08 Unit Group Details:

Code 5112
Title Transport Conductors

5112.1000 **Bus Conductor**

Bus Conductor conducts bus on scheduled route, either long distance or in urban area, picking up and dropping passengers at recognised stops and collects fares. Checks interior equipment of bus, seats, board, first-aid box, etc. Examines and tallies way bills with ticket packets before commencing run. Adjusts destination board of bus before commencement of each trip. Regulates boarding of bus and assists passengers in handling luggage. Answers queries of passengers regarding timing, route and fares. Collects fares and issues tickets to passengers and checks ticketless and over travelling. Signals Bus Driver by bell or whistle to start or stop and to allow passage for other overtaking vehicles. Co-operates with him in maintaining time schedule. Announces names of stages or stops as they are approached. Hands over lost property found in bus at end of each journey to Time Keeper or other superior officer. Guides Driver while reversing bus by whistle or bell signal when necessary. Gives first-aid to passengers in case of accident. Verifies entries made by Starter on ticket memo and mileage card at end of each trip and renders account of cash and unsold tickets to Cashier or employer.

May note names and addresses of witnesses and passengers, etc. and submit report to employer or Senior Officer as required.

ISCO 08 Unit Group Details:

Code 5112
Title Transport Conductors

5112.9900 **Transport Conductors, Other**

Transport Conductors and Guards, Other include all other Transport Conductors and Guards engaged in railway or road transport services, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 5112
Title Transport Conductors

Family 5113

Travel Guides

Travel Guides accompany individuals or groups on trips, sightseeing tours and excursions and on tours of places of interest such as historical sites, industrial establishments and theme parks. They describe points of interest and provide background information on interesting features.

5113.0100 **Travel Agent**

Travel Agent plans travels, provides related information and arranges accommodation, itinerary and other facilities for tourists, officials, businessmen and educational or other parties. Receives information from

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

persons, seeking help and necessary facilities. Answers inquiries, offers suggestions and provides descriptive literature road maps etc., pertaining to trips, excursions, shopping and entertainment features. Discusses routes, time schedules, baggage limits, rates and types of accommodation with patrons to determine their arrival and departure times and assists personnel to complete travel forms, visas and other official and business transaction pertaining to travel. Plans itinerary and makes travel, baggage handling, passage reservations, accommodation and other arrangements as sought within available funds. Delivers travel and reservation tickets and connected papers to party or authorized person, informs him of the arrangements made and collects, expenses incurred and service charges either through bank or in cash. May arrange for road transport camping and other facilities if desired. May arrange study travel for students going abroad.

ISCO 08 Unit Group Details:

Code 5113
Title Travel Guides

5113.0200 Tourist Guide

Tourist Guide guides tourists and visitors to places of interest and explains historical background and importance of site. Accompanies tourists on their excursions to and around places of tourist interest and explains historical, cultural, social, religious and architectural significance of monuments. Answers questions of tourists relating to various economic and social aspects of life or people. May assist tourists in shopping. May act as interpreter to tourists to converse with people and or shopkeepers, hoteliers, etc.

ISCO 08 Unit Group Details:

Code 5113
Title Travel Guides

5113.9900 Guides, Other

Travel Guides and Ground Hosts, other include all other worker, engaged in guiding, ground hosting and assisting tourists and excursion parties in their travels and visits not elsewhere classified.

ISCO 08 Unit Group Details:

Code 5113
Title Travel Guides

Group 512

Cooks

Cooks plan, organize, prepare and cook meals in hotels, restaurants and other eating places, on board ships, on passenger trains and in private households

Occupations in this Group are classified into the following Families:

5120 Cooks

Family 5120 Cooks

Cooks plan, organize, prepare and cook meals in hotels, restaurants and other eating places, on board ships, on passenger trains and in private households.

5120.0200

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Cook, Institutional

Cook, Institutional prepares, seasons and cooks soups, meats, vegetables, desserts and other foodstuffs for consumption in hotels, restaurants and other establishments. Fries, boils, broils, roasts or steams vegetables, meats, fish and other food to prepare dishes listed on menu and prepares salads, sandwiches, cakes, fruit juices and other cold foods. Supervises dish washing and preparing of vegetables and other foodstuffs for cooking. May specialize in preparing a particular type of food, such as meat, salad, pastry or vegetables, and be designated accordingly.

Cook, Ship on board ship. Plans menu taking account of foods in season and local availability. Cooks food stuffs in quantities according to menu and number of persons to be served. Cleans, cuts and cooks meat, fish and poultry and bakes breads and pastry. Washes dishes and cleans galley and galley equipment. May order supplies and maintain record and accounts. May supervise activities of one or more workers who assist in preparing and serving, meals.

ISCO 08 Unit Group Details:

Code	5122
Title	Cooks

5120.0500

Kitchen Porter/Steward

Kitchen Porter, Masalchi carries, meat, vegetable water etc. for kitchen in hotels. Cleans crockery, cutlery, dishes, plates, cooking utensils; lights and maintains fire; washes, cuts and peels vegetable. May use kitchen machines e.g. electric washers, knife cleaners, potato-peeler.

ISCO 08 Unit Group Details:

Code	5122
Title	Cooks

5120.0600

Pantry Man

Pantry Man prepares snacks and beverages in large hotels, clubs or similar establishments and maintains account of sales. Prepares and mixes various ingredients to be used in salads, fruit cocktails, beverages and sandwiches. Serves preparations to Waiters as requested and supplies sugar, cream, pepper, milk, coffee and tea to waiters as ordered and keeps account of sales or

ISCO 08 Unit Group Details:

Code	5122
Title	Cooks

5120.0300

Cook, Domestic

Cook, Domestic prepares and cooks meals in private households. Plans menu according to own judgement or employers instructions and prepares vegetables and meats. Cooks food stuffs according to recipes or own judgement. Cleans or supervises cleaning of kitchen and cooking utensils. May serve meals, perform duties of valet and be designated as COOK-BEARER.

ISCO 08 Unit Group Details:

Code	5122
Title	Cooks

5120.0400

Cook, Ship

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

issues. Maintains pantry in clean and orderly condition. May work in ships' dining rooms.

ISCO 08 Unit Group Details:

Code	5122
Title	Cooks

5120.9900

Cooks, Other

Cooks, Other prepare special food or dishes in private households or public eating places and include cooks not elsewhere classified, such as SWEET MASTER plans and prepares general and special sweet dishes, in hotels, restaurants and other such establishments. DIET COOK prepares special diets for invalids. TEA AND COFFEE MAKER brews and prepares beverages like coffee and tea in hotels, clubs or similar establishments and ensures proper cleanliness of stall.

ISCO 08 Unit Group Details:

Code	5122
Title	Cooks

Group 513

Waiters and Bartenders

Waiters and Bartenders serve food and beverages in commercial dining and drinking places, clubs, institutions and canteens, on board ships and on passenger trains.

Occupations in this Group are classified into the following Families:

5131 Waiters

5132 Bartenders

Family 5131

Waiters

Waiters serve food and beverages at tables in dining and drinking places, clubs, institutions and canteens, on board ships and on passenger trains.

5131.0100

Butler

Butler serves or supervises serving of foods and beverages and performs additional services in private households. Sets or supervises setting of table for meals and for special occasions, by bearers. Serves or supervises serving of meals and wines and removes or directs removal of dishes between courses. Prepares or supervises preparation of fancy uncooked dishes such as fruit cocktails and salad. Prepares and serves tea, coffee, liquors and accompanying foods and performs additional services such as receiving guests. May supervise cleaning of dining room.

ISCO 08 Unit Group Details:

Code	5131
Title	Waiters

5131.0200

Steward, Hotel

Steward, Hotel supervises work of Dining Room Waiters Pantry Man and Room Service Waiter and ensures that guests are served promptly and courteously in dining room. Receives customers in dining hall and escorts them to tables and obtains orders from customers and ensures that food is served promptly by Waiters. Visits rooms, halls and other areas to ensure that they are kept clean and tidy. Ensures that glass, china and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

silver wares are in good order. Prepares dining halls for banquets and special occasions by decorating them with flower vases and arranging tables and chairs in pleasing fashions. Keeps record of any breakage of crockery or loss of cutlery. May keep kitchen equipment, crockery, cutlery etc., under his charge and issue them as needed. May purchase food supplies and kitchen equipment and check them for quality and quantity. May supervise storage and issue of supplies.

ISCO 08 Unit Group Details:

Code	5131
Title	Waiters

5131.0300

Bearer, Domestic/Household Workers

Bearer; Waiter (Domestic) lays tables and serves meals and beverages in private house, Prepares tables for meals by spreading clean linen or plastic cover and placing glasses, condiment-holders, flower-vases, plates and cutlery over it. Places dishes on table in front of persons and serves food and supplies additional food and water when required. Removes soiled dishes from table. Performs other domestic work such as keeping of wardrobes, dressing persons, cleaning clothes, polishing shoes, making beds. May prepare food and clean utensils.

ISCO 08 Unit Group Details:

Code	5131
Title	Waiters

5131.0401

Waiter, Institutional/Food and Beverage Service-Steward

Waiter; Bearer (Institutional) serves food, snacks, beverages to customers, guests in hotels, bars, and restaurants. Prepares table with clean linen, condiments-containers, glasses, menu-card and obtains orders from customers. Collects food, beverages, snacks etc., from kitchen according to customers' orders from Pantry Man and serves them. Waits on customers periodically for additional requirements, of food etc. Removes used plates, cups, saucers from table and presents bill to customers and collects cash and hands it to Cashier. Is designated as WAITER (dining room) if employed in serving food in dining rooms and LOUNGE WAITER if engaged for serving beverages and snacks in lounge.

Qualification Pack Details:

QP NOS Reference	THC/Q0301
QP NOS Name	Food & Beverage Service-Steward
NSQF Level	3

ISCO 08 Unit Group Details:

Code	5131
Title	Waiters

5131.0500

Wine Waiter

Wine Waiter; Abdar receives orders for drinks, obtains them from Barman and serves to customers. Attends to customers and patrons visiting bar, club, dining room, hotel and other institutions and answers enquiries about availability of drinks. Takes order for drinks, obtains them from Barman and serves customers and waits on customers and serves additional requirement of drinks. Presents bill for payment and deposits amount with Barman. Removes empty glasses and cleans table. May serve snacks if required.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	5131
Title	Waiters

5131.9900

Waiters, Other

Waiters and Bartenders, Other include all other waiters and bartenders who serve food and beverages in commercially-operated dining and drinking places, clubs, institutions and canteens and on board ships not elsewhere classified.

ISCO 08 Unit Group Details:

Code	5131
Title	Waiters

Family 5132

Bartenders

Bartenders prepare, mix and serve alcoholic and non-alcoholic drinks directly to customers over a bar or counter, or through waiters.

5132.0100

Barman

Barman measures, mixes and serves alcoholic and non-alcoholic drinks at bar, in clubs, and other institutions and answers inquiries. Receives orders for drinks from Wine Waiter or directly from customers and measures drinks by pegs in glasses and serves to customer or supplies them to Wine Waiter to be served. Supplies other beverages if required. Prepares bill for payment and maintains account and keeps records of stock. May mix various drinks to make cocktails.

ISCO 08 Unit Group Details:

Code	5132
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Title	Bartenders
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5132.9900

Bartenders, Other

Bartenders, Other include bartenders who prepare, mix and serve alcoholic and non-alcoholic drinks not elsewhere classified.

ISCO 08 Unit Group Details:

Code	5132
Title	Bartenders

Group 514

Hairdressers, Beauticians and Related Workers

Hairdressers, Beauticians and Related Workers cut and dress hair, shave and trim beards, give beauty treatment, apply cosmetics and make-up and give other kinds of treatment to individuals in order to improve their appearance.

Occupations in this Group are classified into the following Families:

5141 Hairdressers

5142 Beauticians and Related Workers

Family 5141

Hairdressers

Hairdressers cut, style, colour, straighten and permanently wave hair, shave or trim facial hair and treat scalp conditions.

5141.0100

Hair Dresser (Ladies)

Hair Dresser; Hair Stylist (Ladies) cuts, washes, dyes and waves hair and performs other personal services

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

incidental to hair dressing of women. Covers clothing of clients with towel or apron to avoid sticking of cut hair. Cuts hair according to instructions of client or according to a particular style using clippers, scissors, razors and combs. Washes, rinses and dries hair, using shampoos and solutions as necessary and bleaches, dyes or tints hair. Waves hair by wrapping it with round curlers, adding wave solutions and performing other tasks to obtain required effect. Sets hair in desired style by combing. May clean, shape and polish finger nails. May give scalp treatment to clients.

ISCO 08 Unit Group Details:

Code	5141
Title	Hairdressers

5141.0200

Hair Stylist

Hair Stylist specializes in dressing hair according to latest style, period, or character portrayal, following instructions of patron MAKE-UP ARTIST, or script: Questions patron or reads instructions of MAKE-UP ARTIST or script to determine hairdressing requirements. Studies facial features of patron or performing artist and arranges, shapes, and trims hair to achieve desired effect, using fingers, combs, barber scissors, hair-waving solutions, hairpins, and other accessories. Dyes, tints, bleaches, or curls or waves hair as required. May create new style especially for patron. May clean and style wigs. May style hairpieces.

ISCO 08 Unit Group Details:

Code	5141
Title	Hairdressers

5141.0201

Assistant Hair Stylist

Assistant Hair Stylist shampoos and conditions hair, blow dries hair, provides basic haircuts as well as assists the hair stylist in providing other advanced hair services. The person also assists in salon ambience maintenance and also does various other odd jobs in the salon including sell salon retail products after obtaining knowledge on them

Qualification Pack Details:

QP NOS Reference	BWS/Q0201
QP NOS Name	Assistant Hair Stylist
NSQF Level	3

ISCO 08 Unit Group Details:

Code	5141
Title	Hairdressers

5141.0300

Barber

Barber; Hair Cutter; Hair Dresser cuts hair, shaves and trims beards, moustaches and performs other personal services to customers incidental to barbing. Covers neck and clothing of customers with towel or apron to avoid cut hair fall on them. Cuts hair, shaves or trims beards or moustaches according to instructions of customers or according to particular style using clippers, scissors, razors and combs. Trims or files raised nails of hands, removes superfluous hair from eye brows, nostrils and ears. Brushes off cut hair from head and neck and washes and cleans face using hand spray and towel and applies antiseptics, cream on face. Performs other personal services such as shampooing, massaging of head by hand and re-combs hair. May do massaging of body and arrange hot or cold bath in hair cutting salon. May do massaging of head and face by electric treatment. May dye and wave hair. May cut corns.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	5141
Title	Hairdressers

5141.9900

Hairdressers, Other

Hairdressers, Other include hairdressers who cut, style, colour and straighten hair not elsewhere classified.

ISCO 08 Unit Group Details:

Code	5141
Title	Hairdressers

Family 5142

Beauticians and Related Workers

Beauticians and Related Workers, give facial and body beauty treatments, apply cosmetics and make-up and give other kinds of treatment to individuals in order to improve their appearance.

5142.0100

Beautician

Beautician gives various forms of beauty treatment to clients. Examines clients' skin and suggests suitable treatment. Applies lotions, creams and packs to stimulate circulation, lubricate tissues and remove wrinkles and lines. Massages face, neck, arms, legs or other parts of body and gives treatment for superficial skin blemishes. Removes superfluous hair by wax treatment or other method. Shapes, colours and otherwise treats eyebrows and eyelashes and applies cosmetics and advises on suitable make-up. May cut, comb and wave hair according to clients' instructions or according to particular style, tint or dye hair, and give scalp

treatment. May clean, shape and polish finger nails.

ISCO 08 Unit Group Details:

Code	5141
Title	Beauticians and Related Workers

5142.0101

Assistant Beautician

Assistant Beautician needs to be aware of the basics of beauty therapy, health and hygiene, safety and needs to be knowledgeable about various beauty products. Assistant Beautician is expected to perform basic epilation, manicure, pedicure and basic face care services and also assist the beautician in providing advanced services. The person also assists in salon ambience maintenance and also does various other odd jobs in the salon including sell salon retail products after obtaining knowledge on them

Qualification Pack Details:

QP NOS Reference	BWS/Q0101
QP NOS Name	Assistant Beautician
NSQF Level	3

ISCO 08 Unit Group Details:

Code	5141
Title	Beauticians and Related Workers

5142.0200

Manicurist

Manicurist cleans, shapes and polishes finger nails. Applies liquid polish-remover or lotion to take off old nail polish or to clean nails. Moistens nails with water before cutting with scissors or nipper and files edges of nails to shape., Applies nail paint with small brush. Cleans and sterilizes equipment. May advise customers on massage and use of creams

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

to improve appearance of hands and arms. Is known as PEDICURIST if performs similar operations on feet, cuts or treats corns.

ISCO 08 Unit Group Details:

Code 5141

Title Beauticians and Related Workers

5142.0201

Pedicurist and Manicurist

Pedicurist and Manicurist needs to be aware of the basics of pedicure and manicure, health and safety, hygiene and needs to be knowledgeable about various beauty products. The role-holder is expected to independently provide services of pedicure and manicure while performing some other assisting services.

Qualification Pack Details:

QP NOS Reference BWS/Q0102

QP NOS Name Pedicurist and
Manicurist

NSQF Level 2

ISCO 08 Unit Group Details:

Code 5141

Title Beauticians and Related Workers

5142.0300

Skin Care Specialist

Skin Care Specialist provides skin care treatments to face and body to enhance an individual's appearance. Advises clients about colours and types of make-up, and instruct them in make-up application techniques. Applies chemical peels in order to reduce fine lines and age spots. Cleanses clients' skin with water, creams and/or lotions. Demonstrates how to clean and care for skin properly, and recommend skin-care regimens.

Determines which products or colours will improve clients' skin quality and appearance. Examines clients' skin, using magnifying lamps or visors when necessary, in order to evaluate skin condition and appearance. Keeps records of client needs and preferences, and the services provided. Performs simple extractions to remove blackheads. Removes body and facial hair by applying wax. Selects and applies cosmetic products such as creams, lotions, and tonics.

ISCO 08 Unit Group Details:

Code 5141

Title Beauticians and Related Workers

5142.0400

Make-Up-Man

Make-up Man applies make-up to faces of actors and other performers to improve or alter their appearance for studio or stage productions. Examines casting list and requisitions wigs, beards and other materials needed. Applies make-up, such as grease paint, rouge, lipstick, face powder, wigs and beards to impart desired facial characteristic or expression to Actor or Actress. Issues instructions to Hair Dresser as to style of hair dressing required.

ISCO 08 Unit Group Details:

Code 5141

Title Beauticians and Related Workers

5142.0500

Dresser, Stage and Studio

Dresser, Stage and Studio designs, maintains, selects costumes and dresses Actors and Actresses for stage and studio performance. Determines type of dresses

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

required for dressing Actors and Actresses in playing various roles, in consultation with Art Director. Designs dresses for tailoring and ensures that completed dresses fulfil requirement of character to be depicted. Dresses Actors and Actresses or assists them in dressing appropriately for stage or studio. May keep dresses and cloths, and maintain accounts. May alter or repair dresses. May get cloths washed and pressed after use.

ISCO 08 Unit Group Details:

Code 5141

Title Beauticians and Related Workers

5142.0600

Wig Man

Wig Man designs wigs, beards, moustaches etc. as per requirement and fits them on Actors of stage and studio. Selects wig, beard or moustache appropriate to character or role. Attaches wig or hair pieces on to wig block, model using hammer and tack or pins. Combs and sets hair according to specification by water-waving or with paper spills. Sprays hair with lacquer to keep hair in place. Places wig on electric heater for drying and ensures that wig has acquired required shape and pattern. Removes wig from wig block, model after pulling out tacks or pins and applies spirit gum on them. Fixes them on face, head, etc. of Actor or Actress as required. Inserts hair clips where necessary and adjusts wig to convenience of Actor or Actress. May apply make-up such as paints, lipstick, powder, etc. to Actor or. Actresses.

ISCO 08 Unit Group Details:

Code 5141

Title Beauticians and Related Workers

5142.0700

Bath Attendant

Bath Attendant, attends to clients taking bath and administers elementary massage to improve their sense of well-being. Prepares water or steam-bath and attends clients during bathing. Rubs body of client with soap and sponge to clean pores of skin and gives client a shower or pours water to wash off soap from body. May help client in drying body with towel and in dressing after bath.

ISCO 08 Unit Group Details:

Code 5141

Title Beauticians and Related Workers

5142.9900

Beauticians and Related Workers, Others

Hairdressers, Barbers, Beauticians and Related Workers, other include all other hairdressers, barbers, beauticians and related workers not elsewhere classified.

ISCO 08 Unit Group Details:

Code 5141

Title Beauticians and Related Workers

Group 515

Building and Housekeeping Supervisors

Building and housekeeping supervisors co-ordinate, schedule, and supervise the work of cleaners and other housekeeping staff in commercial, industrial and residential premises. They take responsibility for housekeeping and caretaking functions in hotels, offices, apartments, houses and private dwellings.

Occupations in this Group are classified into the following Families:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

5151	Cleaning and Housekeeping Supervisors in Offices, Hotels and Other Establishments
5152	Domestic Housekeepers
5153	Building Caretakers

Family 5151

Cleaning and Housekeeping Supervisors in Offices, Hotels and Other Establishments

Cleaning and Housekeeping Supervisors in Offices, Hotels and Other Establishments organize, supervise and carry out housekeeping functions in order to keep clean and tidy the interiors, fixtures and facilities in these establishments.

5151.0101 House Keeper (Institutional)/Housekeeping Supervisor

House Keeper (Institutional) supervises work of staff engaged in cleaning rooms, lounges and dining halls of hotel. Assigns duties to staff and visits periodically all portions of hotel to assure that areas are clean and tidy. Reports any defects in electrical and water systems. Arranges to have rooms and public places periodically white-washed or painted. Indents for fresh supply of linen, and discards worn out items and greets guests in their rooms and enquires about their comfort. Keeps custody of luggage left temporarily by residents. Supervises work of Lascars Porter (Hotel, Sweepers, Room Boys, Lift Boys and Linen Keeper).

Qualification Pack Details:

QP NOS Reference THC/Q 0201

QP NOS Name	Housekeeping Supervisor
NSQF Level	5

ISCO 08 Unit Group Details:

Code	5151
Title	Cleaning and Housekeeping Supervisors in Offices, Hotels and Other Establishments

5151.0201

Janitor/Housekeeping Attendant

Janitor keeps hotel, office building, apartment house, or similar building in clean and orderly condition and tends furnace, air-conditioner, and boiler to provide heat, cool air, and hot water for tenants, performing any combination of following duties: Sweeps, mops, scrubs, and vacuums hallways, stairs and office space. Regulates flow of fuel into automatic furnace or shovels coal into hand-fired furnace. Empties tenants' trash and garbage containers. Maintains building, performing minor and routine painting, plumbing, electrical wiring, and other related maintenance activities, using hand tools. Replaces air-conditioner filters. Cautions tenants regarding complaints about excessive noise, disorderly conduct, or misuse of property. Notifies management concerning need for major repairs or additions to lighting, heating, and ventilating equipment. Cleans snow and debris from sidewalk. Mows lawn, trims shrubbery, and cultivates flowers, using hand tools and power tools.

Qualification Pack Details:

QP NOS Reference	THC/Q 0203
QP NOS Name	Housekeeping Attendant (Manual Cleaning)
NSQF Level	2

ISCO 08 Unit Group Details:

Code 5151
Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

5151.0202

Room Attendant

Room Attendant keeps the guest rooms and defined areas in clean and orderly condition. The core responsibility includes 'systematic' cleaning of the rooms and other defined area, providing linen, performing periodic and deep cleaning to maintain cleanliness and tidiness.

Qualification Pack Details:

QP NOS Reference THC/Q 0202
QP NOS Name Room Attendant
NSQF Level 3

ISCO 08 Unit Group Details:

Code 5151
Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

5151.0300

House Stewards/Domestic Help

House Steward supervises and co-ordinates activities of pantry, storeroom and non-cooking kitchen workers, and purchases or requisitions foodstuffs, kitchen supplies and equipment. Inspects kitchens and storerooms to ensure that premises and equipment are clean and in order and that sufficient food stuffs and supplies are on hand to ensure efficient service. Examines incoming purchases for quality and to ensure that purchases are as specified in order. Approves invoices or bills for payment. Co-ordinates work of

non-cooking kitchen and storeroom workers engaged in activities such as dishwashing, silver cleaning and storage and distribution of foodstuffs and supplies. Establishes controls to guard against theft and wastages. Confers with House Keeper concerning banquet arrangements for food service equipment and extra employees. May plan and price menus, keep cost records and establish budget controls to ensure profitable food service operation

ISCO 08 Unit Group Details:

Code 5151
Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

5151.0400

Matron, House Keeping

Matron, House Keeping; Controller of Household supervises work of staff in hostels, boarding houses, orphanages and other residential institutions and looks after welfare of residents and cleanliness of premises. Allots duties to domestic staff engaged in cleaning rooms. Ensures that Ayahs, Waiters etc., attend to comfort of residents and maintains cleanliness of place. Meets women residents, enquires about their comfort and arranges for their requirements.

ISCO 08 Unit Group Details:

Code 5151
Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

5151.0500

Linen Keeper

Linen Keeper supplies linen needs of rooms, lounges and dining halls of hotel.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Maintains linen register indicating stock position of various types of linen. Issues clean linen (bedcovers, table-cloth, napkins, towels) to rooms and dining halls in place of dirty or soiled ones. Sends soiled linen to laundry, and collects washed and pressed articles. Sorts out linen that requires repair or replacement and recommends purchase of fresh linen. May mend or sew linen.

ISCO 08 Unit Group Details:

Code 5151

Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

5151.0600

Hotel and Restaurant Keeper/Hotel and Restaurant Owner

Hotel and Restaurant Keeper runs hotels, restaurants, tea stalls, snack bars etc., on his own account and serves food and beverages to customers. Arranges business accommodation in suitable locality and furnishes it within available means. Appoints cooks, servants, dishwashers, etc., to serve food to the customers as required and obtains business license. Purchases saleable food stuff and other raw materials, economically, according to nature and extent of business. Gets food prepared to suit taste of likely customers under his direct supervision. Serves food and beverages to customers on demand or at fixed hours and collects money from them. Ensures safety of boarders' property if also catering for lodging services. Maintains necessary cleanliness and abides by respective municipal rules. Maintains daily accounts and other registers as enforced by law and to ensure business profit. May cook food, serve them to customers and also perform

other tasks if working on very small scale. May supply food and beverages at customers' residence or any other place within easy reach. May take catering contract at customers' residence on special occasions.

ISCO 08 Unit Group Details:

Code 5151

Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

5151.0701

Supervisor, Front Office/Customer Service Executive (Meet and Greet)

Supervisor, Front Office co-ordinates front-office activities of hotel or motel and resolves problems arising from guests' complaints, reservation and room assignment activities, and unusual requests and inquiries. Assigns duties and shifts to workers and observes performances to ensure adherence to hotel policies and established operating procedures. Confers and co-operates with other department heads to ensure co-ordination of hotel activities. Answers inquiries pertaining to hotel policies and services. Greets important guests. Arranges for private telephone line and other special services. May patrol public rooms, investigate disturbances, and warn troublemakers. May interview and hire applicants. May receive and process advance registration payments. May send out letters of confirmation or return cheques when registration cannot be accepted.

Qualification Pack Details:

QP NOS Reference THC/Q0101

QP NOS Name Customer Service
Executive (Meet
and Greet)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 3

ISCO 08 Unit Group Details:

Code 5151

Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

5151.0800

Room Bearer/Bell Boys/Bell Hop/Hotel Porters

Room Bearer assists guests arriving at hotel entrance by opening doors of vehicle, helping them alight, and guiding them to Reception Clerk and sees that luggage is unloaded and carried to guest's room by Lascars. Assists residents in getting taxis or coaches. Answers telephone calls. Allots rooms to unexpected guests etc./in absence of enquiry and reception clerk at night. Maintains night report register indicating happenings, work of night duty staff etc. Maintains keys of resident rooms and arranges for delivery of mail, letters and telegrams. May make beds, clean dress and polish shoes.

ISCO 08 Unit Group Details:

Code 5151

Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

5151.9900

Cleaning and Housekeeping Supervisors in Offices, Hotels and Other Establishments, Other

Housekeepers and Related Workers, other include other workers who organize, supervise and carryout housekeeping functions in hotels, clubs, boarding schools and other enterprises and

institutions and in private households not elsewhere classified.

ISCO 08 Unit Group Details:

Code 5151

Title Cleaning and Housekeeping
Supervisors in Offices, Hotels and
Other Establishments

Family 5152

Domestic Housekeepers

Domestic Housekeepers organize, supervise and carry out housekeeping functions in private households with or without the support of subordinate staff.

5152.0100

House Keeper (Domestic)

House Keeper (Domestic) organizes and supervises work of Domestic Servants for maintaining house in clean and orderly manner. Allots work to various staff under control and supervises their work. Ensures proper maintenance and cleanliness of house. Purchases provisions and other necessities as advised and maintains accounts. Looks after needs and comforts of guests and visitors. May also look after children. May assist in shopping.

ISCO 08 Unit Group Details:

Code 5152

Title Domestic Housekeepers

5152.9900

Domestic Housekeepers, Others

Domestic Housekeepers, Others include housekeepers who organize, supervise and carry out housekeeping functions in private households not elsewhere classified.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 5152
Title Domestic Housekeepers

Family 5153 Building Caretakers

Building Caretakers take care of apartment houses, hotels, offices, churches and other buildings and maintain them and associated grounds in a clean and orderly condition. They may supervise other workers and contractors depending on the size and nature of the building concerned.

5153.0100 Caretaker, Building

Caretaker, Building takes care of houses, offices, institutions, public and other buildings and maintains them in orderly and clean condition. Looks after buildings and furnishings of clubs, schools, offices, flats and private houses and arranges cleaning, repairs of building and its equipment. Keeps keys of vacant houses and flats and delivers possession to tenants or to the people allotted. Attends to enquiries and complaints of tenants and provides services such as arrangement for additional lighting, heating or ventilating equipment and sanitary services and takes safety measures against fires, thefts in building by providing fire-fighting equipment e.g. water buckets, sand, fire extinguishers and providing iron bars, at unsafe places. Keeps record of labour and material costs for maintenance of building, and reports to owner or agent. May maintain garden, lawns, and hedges of building. May rent out residential building. May collect fruits from the garden and rent and pay taxes.

ISCO 08 Unit Group Details:

Code 5153
Title Building Caretakers

5153.0200 Caretaker, Monument

Caretaker, Monument looks after maintenance, cleanliness and safety of historical monuments and ancient structures of archaeological importance. Visits premises under charge at regular intervals and sees that monument is cleaned by subordinate staff, safety measures are carried out, visitors are allowed within prescribed time limits, and monument is not spoilt or damaged by them. Supervises work of subordinate staff such as Gardener, Chowkidar and sweepers (dry and wet) and reports to authorities of damage or loss to monument. May guide and explain background of monument to visitors. May arrange sale of tickets for entry into monument.

ISCO 08 Unit Group Details:

Code 5153
Title Building Caretakers

5153.0300 Caretaker, Burial Places and Cremation Grounds

Caretaker Burial Places and Cremation Ground looks after maintenance of graveyard, crematorium or tower of silence and arranges requisite material and keeps record of dead bodies buried or disposed. Receives and records particulars of deceased, allocates or marks place for burial or cremation, arranges supply of necessary implements for digging of grave, firewood for cremation, and other assistance where required. Keeps premises clean and tidy and arranges

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

removal of remains of cremated body not collected. May undertake responsibility for disposal of unclaimed bodies of destitute.

ISCO 08 Unit Group Details:

Code	5153
Title	Building Caretakers

5153.9900

Building Caretakers, Other

Building Caretakers, Other include all other Building Caretakers engaged in taking care of public and private building, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	5153
Title	Building Caretakers

Group 516

Other Personal Services Workers

Other Personal Services Workers recount past and predict future events in persons' lives, provide companionship and other personal services, groom, train and care for animals, provide embalming and funeral services train people to drive vehicles.

Occupations in this Group are classified into the following Families:

5161 Astrologers, Fortune Tellers and Related Workers
5162 Companions and Valets
5163 Undertakers and Embalmers
5164 Pet Groomers and Animal Care Workers
5165 Driving Instructors

5169 Personal Service Workers, Not Elsewhere Classified

Family 5161

Astrologers, Fortune Tellers and Related Workers

Astrologers, Fortune-Tellers and Related Workers recount past and predict future events in persons' lives by practicing astrology, on the basis of characteristics of the clients' palms, samples of playing cards drawn or other techniques.

5161.0100

Astrologer

Astrologer casts horoscope of persons, showing position and influence of stars and planets at time of birth and interprets horoscope to relate past and to forecast future events in their lives. Casts and interprets horoscope of persons, showing position and influence of stars and planets on individuals regarding their health, longevity, prosperity, family and social life etc. Determines auspicious time for various human activities such as marriages, journeys, religious ceremonies etc. Advises individuals about precautions to be taken and religious rites to be performed to avoid evil influences of stars and planets. May prescribe to wear specific stones (jewels), metals or roots of trees or plants to reduce adverse planetary effects and for promoting of better prospects.

ISCO 08 Unit Group Details:

Code	5161
Title	Astrologers, Fortune Tellers and Related Workers

5161.0200

Palmist

Palmist interprets lines and other symbols on palms, feet or forehead of persons to relate to their past and forecast future events in their lives. Examines palms, feet or fore head of individuals and studies lines and other symbols noting their position and if necessary by taking impression on paper. Makes scientific study by measuring lines, examining mounts, colour of nails, shape of hand, fingers etc. using magnifying glass if required. May prescribe to wear specific stones (jewels), metals or roots of trees or plants for better prospects.

ISCO 08 Unit Group Details:

Code 5161

Title Astrologers, Fortune Tellers and Related Workers

5161.9900

Astrologers, Fortune Tellers and Related Workers, Other

Fortune-Tellers, Palmists and Related Workers, other practice art of fortunetelling and treat physical and mental ailments by spiritual powers and include those predicting future events or preparing talismans not elsewhere classified such as: Card Reader if relates past and forecasts future events of individuals by reading and interpreting playing cards picked by Customer or by reading content of hand-written card picked by trained birds from pack of cards scripted with variety of predictions of past and future events. Nadi Jyotishi measures shadows of individuals and reads out past and forecasts future on the basis of measurements from book known as Chhaya Shastra. Numerologist explains

occult significance of numbers and their influence and relation of human life. Calculates ones lucky or important number and number value of one's name and suggests auspicious time for effecting important transactions and decisions. Faith Healer if engaged in treatment of physical and mental ailments and discomforts of individuals by giving talisman and performing special rites and charms.

ISCO 08 Unit Group Details:

Code 5161

Title Astrologers, Fortune Tellers and Related Workers

Family 5162

Companions and Valets

Companions and Valets provide companionship and attend to various needs of the employer.

Family 5163

Undertakers and Embalmers

Undertakers and Embalmers perform various tasks in the disposal of dead human bodies.

5163.0100

Undertaker

Undertaker supervises arrangements for funeral including provision of coffin, burial clothes, flowers, etc., according to requirements. Obtains data from family for supply of coffin of suitable size and arrange for digging of grave of required dimensions, and type. Provides burial clothes of kind required for draping coffin and covering body and arranges for hearse (vehicle for conveying coffin) to transport body to graveyard; wreaths and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

flowers required for the occasion. Supervises lowering of coffin into grave by bearers. Suggests kinds of tomb-stone available and makes arrangements for its preparation and installation on grave. May make arrangements for band for occasion. May arrange for examination of corpses after getting necessary permission from authorities and transfer remains in hermetically sealed coffin and arrange for transport of remains to clients.

ISCO 08 Unit Group Details:

Code 5163

Title Undertakers and Embalmers

5163.0200

Embalmer

Embalmer preserves dead human bodies by injecting and applying preserving medicines to retard or arrest process of decay or decomposition. Washes body with germicidal soap; sews lips shut, and packs orifices with cotton to prevent leakage; drains blood from body by cutting artery and injects preservative or embalming fluid into body under gravitational pressure. Moves parts of dead body manually for injected fluid to spread thoroughly. Punctures internal organs through abdomen to remove fluids and gases. Closes incisions and restores disfigured bodies to their normal appearance by affixing pieces of moulded wax or other material to injured portions of body. Dresses body and places it in coffin for preservation till specified period.

ISCO 08 Unit Group Details:

Code 5163

Title Undertakers and Embalmers

5163.0300

Grave Digger

Grave Digger digs graves with pick and shovel in grave-yards, cemeteries and church-yards. Marks out dimensions of grave on ground, digs earth with pick and shovel to excavate soil to required depth. Braces sides of excavation with wooden props when necessary to prevent carvings during or after burial of body. Refills grave with earth after burial of dead body or lowering coffin in grave and covering it with planks or stone slabs to protect body being exhumed by carnivorous animals such as jackals, stray dogs. May assist in lowering coffin into grave using ropes or cloth, etc.

ISCO 08 Unit Group Details:

Code 5163

Title Undertakers and Embalmers

5163.9900

Undertakers and Embalmers, Other

Under Takers and Embalmers, other include all other workers engaged in preparing of dead bodies for burial, cremation, preservation or other purposes, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 5163

Title Undertakers and Embalmers

Family 5164

Pet Groomers and Animal Care Workers

Pet Groomers and Animal Care Workers feed, handle, train and groom animals and assist Veterinarians, Animal Health Technologists and Technicians in maintaining veterinary facilities, animal

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

shelters, breeding and boarding kennels, zoos, laboratories, retail pet shops, riding schools, dog training schools pet grooming and similar establishments.

Family 5165

Driving Instructors

Driving Instructors teach people how to drive motor vehicles.

5165.0101

Commercial Vehicle Driver Trainer

Commercial Vehicle Driver Trainer: Individuals at this job need to impart training for those programmes that provide practical (behind-the-wheel) instruction with a focus on the development of competencies associated with the operation and control of a commercial vehicle.

Qualification Pack Details:

QP NOS Reference	ASC/Q9708
QP NOS Name	Commercial Vehicle Driver Trainer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	5165
Title	Driving Instructors

Family 5169

Personal Service Workers, Not Elsewhere Classified

This family covers Personal Service Workers not classified elsewhere in Sub-Division 51, Personal Service Workers. For instance, those who provide services and companionship as dancing partners, social

escorts, and night-club hostesses or hosts are classified here.

Sub Division 52

Sales Workers

Sales Workers sell and demonstrate goods in wholesale or retail shops, at stalls and markets, door-to-door, via telephone or customer contact centres. They may record and accept payment for goods and services purchased, and may operate small retail outlets.

Tasks performed by workers in this sub-major group may include the following: selling goods in wholesale or retail establishments or at street or market stalls, door-to-door, via telephone or customer contact centres; demonstrating and displaying goods to potential customers; selling and serving food for immediate consumption at counters and in the street; buying or contracting a regular supply of products to be sold; stacking and displaying goods for sale, and wrapping and packing goods sold; determining product mix, stock and price levels for goods to be sold; operating cash registers, optical price scanners, computers or other equipment to record and accept payment for the purchase of goods and services. Supervision of other workers may be required in some occupations classified here

Occupations in this Sub Division are classified into the following Groups:

521	Street and Market Salespersons
522	Shop Salespersons
523	Cashiers and Ticket Clerks
524	Other Sales Workers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Group 521

Street and Market Salespersons

Street and market salesperson sell goods from stalls on markets or in streets and prepare and sell hot or cold foods and beverages ready for immediate consumption in streets and public places.

Occupations in this Group are classified into the following Families:

5211 Stall and Market Salespersons

5212 Street Food Salespersons

Family 5211

Stall and Market Salespersons

Stall and market salespersons sell various goods from stalls on open-air or covered markets or from stalls in streets or other open spaces.

5211.0100

Advertising Sales

Agent/Advertising Executive

Advertising Sales Agent sells or solicits advertising, including graphic art, advertising space in publications, custom made signs, or TV and radio advertising time. May obtain leases for outdoor advertising sites or persuade retailer to use sales promotion display items. Consults with company officials, sales departments, and advertising agencies in order to develop promotional plans. Delivers advertising or illustration proofs to customers for approval. Draws up contracts for advertising work, and collect payments due. Explains to customers how specific types of advertising will help promote their products or services in the

most effective way possible. Identifies new advertising markets, and propose products to serve them. Locates and contact potential clients in order to offer advertising services. Maintains assigned account bases while developing new accounts. Obtains and studies information about clients' products, needs, problems, advertising history, and business practices in order to offer effective sales presentations and appropriate product assistance. Prepares and delivers sales presentations to new and existing customers in order to sell new advertising programmes, and to protect and increase existing advertising.

ISCO 08 Unit Group Details:

Code 5211

Title Stall and Market Salespersons

5211.0200

Shop Attendant/Sales Assistant

Shop Attendant performs number of low skilled tasks in wholesale or retail business establishment such as opening and closing of shop; keeping premises neat and clean; bringing articles from stock or show cases to counter or from manufacturers, dealers or railway stations to establishment premises; opening packages and storing articles at proper places and assisting Shop Assistant in measuring, weighing and packing of articles. May attend to local dak, bank transactions and run other errands.

ISCO 08 Unit Group Details:

Code 5211

Title Stall and Market Salespersons

5211.0300

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Telemarketing Sales Person/Telemarketing Sales Operator

Telemarketing Salesperson solicits business for an establishment or clients via the telephone or e-mail, advises clients and processes financial and other queries and procedures. Gives details of various goods or services and of the firm's terms of sale by contacting clients via telephone or email; identifies requirements, following up on deliveries and entering events into a computer system; dispatches tasks to other units, when relevant; invoices or handles payments, when necessary; sends letters, information sheets and other documents to clients; performs related tasks; supervises other workers.

ISCO 08 Unit Group Details:

Code 5211
Title Stall and Market Salespersons

5211.0301 Sales Executive-Dealership

Sales Executive is responsible for supporting sales to generate sales leads (telemarketing activities) and also support overall sales process to support both sales and service activities.

Qualification Pack Details:

QP NOS Reference ASC/Q1010
QP NOS Name Sales Executive-
Dealership
NSQF Level 3

ISCO 08 Unit Group Details:

Code 5211
Title Stall and Market Salespersons

5211.0302 Telecaller

Telecaller is responsible for making cold calls to the customer and supporting sales to generate sales leads (telemarketing activities) and also support follow-up calls to support both sales and service activities

Qualification Pack Details:

QP NOS Reference ASC/Q1105
QP NOS Name Telecaller
NSQF Level 4

ISCO 08 Unit Group Details:

Code 5211
Title Stall and Market Salespersons

5211.9900 Stall and Market Salespersons, Other

Stall and Market Salespersons, other include those who sell various goods such as leather or textile craft products, wood carvings, embroidery, lace, or newspapers, periodicals, postcards, cigarettes, chocolates and ice-creams, at stalls which are usually placed, by license, at particular places in streets or other open spaces, or they sell fruit, vegetables and other, mostly perishable, foodstuffs in markets not elsewhere classified. SKILLED AGRICULTURAL AND FISHERY WORKERS Skilled agricultural and fishery workers grow and harvest field or tree and shrub crops, gather wild fruits and plants, breed, tend or hunt animals, produce a variety of animal husbandry products, cultivate, conserve and exploit forests, breed or catch fish and cultivate or gather other forms of aquatic life in order to provide food, shelter and income for themselves

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and their households. Most occupations in this division require skills at the second skill level.

ISCO 08 Unit Group Details:

Code 5211

Title Stall and Market Salespersons

Family 5212

Street Food Salespersons

Street Food Salespersons prepare and sell, or sell previously prepared, hot or cold foods and beverages ready for immediate consumption in streets and public places such as stations, cinemas, or theatres.

5212.0100

Milkman

Milkman; Dhudhwala; Gawala (Seller) delivers milk from door to door to his regular customers and sells milk, curd, etc. to customers at his shop or fixed place. Estimates his requirements and purchases milk from Wholesale Dealers. Ensures that milk-cans are washed properly and fills necessary quantity of milk in them. Goes to regular customers on foot or on cycle and delivers milk as required. Keeps day-to-day record of milk delivered and collects money from customers monthly. May sell milk and other dairy products to customers at his shop or place. May own buffalo or cow and may take it to customer's place for milking.

ISCO 08 Unit Group Details:

Code 5212

Title Street Food Salespersons

5212.9900

Street Food Vendors, Other/Khomchawala, Dhabawala, Chat Thelawala,

Street Food Vendors, other include workers who prepare and sell previously prepared, hot or cold foods, vegetables, fruit, ice cream and various drinks, in streets and public places such as stations, cinemas or theatres not elsewhere classified.

ISCO 08 Unit Group Details:

Code 5212

Title Street Food Salespersons

Group 522

Shop Salespersons

Shop Salespersons sell a range of goods and services directly to the public or on behalf of retail and wholesale establishments. They explain functions and qualities of these goods and services, and may operate small shops or supervise the activities of Shop Sales Assistants and cashiers.

Occupations in this Group are classified into the following Families:

5221 Shopkeepers
5222 Shop Supervisors
5223 Shop Sales Assistants

Family 5221

Shopkeepers

Shopkeepers operate small retail shops either independently or with support from a small number of others.

Family 5222

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Shop Supervisors

Shop Supervisors supervise and co-ordinate the activities of shop Sales Assistants, Checkout Operators and other Workers in retail and wholesale shops such as supermarkets and department stores.

5222.0100

Sales Supervisor, Wholesale Trade

Sales Supervisor, Wholesale Trade supervises wholesale business of any commodity in particular area of specified zone to effect better sale and improve supply and demand position. Contacts businessmen and takes stock of available business in his area. Directs Representatives or area Salesmen to contact prospective retail businessmen. Advises Stockists and Distributors to supply goods as required and maintains registers of sales effected. Supervises work of Representatives or area Salesmen to popularise and promote business by undertaking advertisement and publicity drives and looks into complaints of service and defective or poor quality of goods for improvement. Informs head office of market trends and of defects or complaints noticed in products, suggesting improvements to avoid adverse effects on business. Submits prescribed returns and reports performance of juniors and sub-ordinates to head office for service benefits or otherwise. May accompany Representatives on sale drives and to train them.

ISCO 08 Unit Group Details:

Code 5222
Title Shop Supervisors

5222.0101

Area Parts Manager (APM)

Area Parts Manager is responsible for managing and ensuring spare parts movement for the assigned area. The individual should drive parts sales through planning and developing targets for particular area.

Qualification Pack Details:

QP NOS Reference ASC/Q0605
QP NOS Name Area Parts
Manager(APM)
NSQF Level 5

ISCO 08 Unit Group Details:

Code 5222
Title Shop Supervisors

5222.0201

Sales Supervisor, Retail Trade/CRM Manager

Sales Supervisor, Retail Trade supervises performance of Sales girls and Salesmen in department stores, emporia, etc. to co-ordinate their functions and ensure smooth selling activities. Gets merchandise properly arranged by Shop Attendants according to quality, demand, price range, etc. and labels them for display to prospective Buyers. Ensures that Salesmen, Retail and Shop Assistants attend to customers promptly and politely and effects sales in regular manner by creating purchasing interest in customers. Watches measuring or weighing, collection of money, packing and other selling activities and ensures cordial and renewed interest of customers for future purchases. Maintains stock of goods in demand and replenishes them as necessary. May personally attend to customers during rush hours. May take

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

special interest in attending, introducing new items and selling articles to patrons, foreigners and important persons. May handle cash and maintain stock and sales accounts. May work as Field Supervisor, co-ordinate function of Sales Representatives and publicise marketing activities.

Qualification Pack Details:

QP NOS Reference	ASC/Q0202
QP NOS Name	CRM Manager
NSQF Level	6

ISCO 08 Unit Group Details:

Code	5222
Title	Shop Supervisors

Family 5223

Shop Sales Assistants

Shop Sales Assistants sell a range of goods and services directly to the public or on behalf of retail and wholesale establishments, and explain the functions and qualities of these goods and services.

5223.0100

Shop Assistant

Shop Assistant; Counterhand assists Salesman, Retail in effecting sales of goods to customers and keeping goods neat and tidy in retail shop or departmental store. Attends shop or establishment before its opening time, supervises its cleaning and dusting and ensures that all goods are kept neat and tidy. Brings required types of goods from stock by measuring or weighing and packs them in paper, carton etc. Delivers them to customer on premises or at place specified. Informs Salesman or Dealer items of goods which are in short supply

and which need to be replenished. Takes delivery of goods purchased from manufacturer agents, dealers, Railway stations etc. Assists Dealers in stock-taking and performs all other duties as assigned to him by Dealer or Salesman. May prepare bills, receive payment, check stock and maintain stock register. May be designated according to commodity sold.

ISCO 08 Unit Group Details:

Code	5223
Title	Shop Sales Assistants

5223.0101

Order Processor

Order Processor is also known as 'Order Taker' or "Order Preparer", the Order Processor is among the first set of individuals working in the jewellery manufacturing chain. Order Processor prepares the job sheet or order form based on customer order.

Qualification Pack Details:

QP NOS Reference	G&J/Q0202
QP NOS Name	Order Processor
NSQF Level	3

ISCO 08 Unit Group Details:

Code
Title

5223.0102

Jewellery Retail Sales Associate (Basic)

Jewellery Retail Sales Associate (Basic) engages with the customers, understands their buying requirements, explains store offerings, assists them in selecting jewellery and completes the sales transaction.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	G&J/Q8302
QP NOS Name	Jewellery Retail
	Sales Associate
	(Basic)

NSQF Level 4

ISCO 08 Unit Group Details:

Code	5223
Title	Shop Sales Assistants

5223.0103

Jewellery Retail Sales Associate (Advanced)

Jewellery Retail Sales Associate (Advanced) engages with the customers, understands the buying requirement of the customers, explains the offerings of the store, assists them in choosing jewellery and completes the sales transaction. The individual manages multiple sales counters of diverse product categories and also take customized jewellery orders from the customers.

Qualification Pack Details:

QP NOS Reference	G&J/Q8303
QP NOS Name	Jewellery Retail
	Sales Associate
	(Advanced)

NSQF Level 5

ISCO 08 Unit Group Details:

Code	5223
Title	Shop Sales Assistants

5223.0104

Plumbing Products Sales Assistant

Plumbing Products Sales Assistant is responsible for assistance in management of sales of plumbing products manufactured by the Company in within a

defined geographic area, province or country.

Qualification Pack Details:

QP NOS Reference	PSC/Q0301
QP NOS Name	Plumbing Products
	Sales Assistant

NSQF Level 2

ISCO 08 Unit Group Details:

Code	5223
Title	Shop Sales Assistants

5223.0105

Trainee Associate

Trainee Associate: Individuals in this position interact with customers to understand customer needs and service them by effecting sales of relevant products. Individuals in this position display merchandise and interact with customers to understand their needs to service them with sales of relevant product offerings whilst working cordially within the team and retail organization.

Qualification Pack Details:

QP NOS Reference	RAS/Q0103
QP NOS Name	Trainee Associate
NSQF Level	3

ISCO 08 Unit Group Details:

Code	5223
Title	Shop Sales Assistants

Group 523

Cashiers and Ticket Clerks

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Cashiers and Ticket Clerks operate cash registers, optical price scanners, computers or other equipment to record and accept payment for the purchase of goods, services and admissions in settings such as stores, restaurants and ticket offices.

Occupations in this Group are classified into the following Families:

5230 Cashiers and Ticket Clerks

Family 5230 Cashiers and Ticket Clerks

Cashiers and Ticket Clerks operate cash registers, optical price scanners, computers or other equipment to record and accept payment for the purchase of goods, services and admissions in settings such as stores, restaurants and ticket offices.

Group 524 Other Sales Workers

Other Sales Workers display, demonstrate, display and sell goods, food and services, usually to the general public, in contexts other than sales in markets, streets and shops. It includes Sales Workers not classified in groups 521 Street and market salespersons, 522 Shop salespersons and 523 Cashiers and Ticket Clerks

Occupations in this Group are classified into the following Families:

5241 Fashion and Other Models

5242	Sales Demonstrators
5243	Door-to-Door Salespersons
5244	Contact Centre Salespersons
5245	Service Station Attendants
5246	Food Service Counter Attendants
5249	Sales Workers Not Elsewhere Classified

Family 5241 Fashion and Other Models

Fashion and Other Models wear and display clothing and accessories and pose for photographs, film and video, advertising, still photography or for artistic creations.

5241.0100 Model, Fashion

Model, Fashion models garments and accessories, such as jewellery, foot wear, cosmetics, hand bags, etc. for display to respective designers, and customers. Dresses in sample or completed garment, matching jewellery, etc. and stands, turns and walks to demonstrate features such as quality, style and design to observers at fashion shows, private showings and retail establishments. May be designated as MANNEQUIN, if models for garments only. May participate in entertainment shows. May inform prospective purchasers as to model, number and price and where they can be purchased. May select own accessories.

ISCO 08 Unit Group Details:

Code 5241
Title Fashion and Other Models

5241.0200 Model

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Model poses draped or nude for painting, drawing or clay modelling according to directions of artists, modeller, sculptor or photographer. Poses according to instructions of Artist, Modeller or Sculptor in sitting standing, reclining position or in act of doing work like pouring, lifting, carrying etc.; changes pose when required by artist or model and rests at intervals.

ISCO 08 Unit Group Details:

Code 5241
Title Fashion and Other Models

5241.9900

Fashion and Models, Other

Fashion and Other Models, Other include those who wear and display clothing and other items for sale or pose as models for advertising or for artistic creation not elsewhere classified.

ISCO 08 Unit Group Details:

Code 5241
Title Fashion and
Other Models

Family 5242

Sales Demonstrators

Sales Demonstrators demonstrate goods at commercial premises, exhibitions and private homes.

5242.0101

Technical Demonstrator (Sale)/Area Technical Lead

Technical Demonstrator (Sales); Representative (Sales) demonstrates correct method of using products, machinery, plants, etc. for achieving best results and assists Technical

Representative in computing costs, preparing estimates and blue-prints erecting and servicing machinery, plant, etc. Visits prospective clients and demonstrates correct and efficient method of using products, machinery, plants, etc. Assists Technical Representative in computing cost, working out estimates, preparing blue-prints, etc. Attends to erection of machinery or plants and ensures that work is completed according to specifications. May attend to servicing of machinery or plants after sale. May also train clients or his representative in correct handling and maintenance of products, machinery, plants, etc.

Qualification Pack Details:

QP NOS Reference ASC/Q0601
QP NOS Name Area Technical Lead
NSQF Level 6

ISCO 08 Unit Group Details:

Code 5242
Title Sales
Demonstrators

5242.0102

Sales Associate

Sales Associate: Individuals in this position interact with customers to understand and service customer needs with specialization leading to maximization of business in a retail environment. Individuals in this position interact with customers by giving specialized service and product demonstrations to maximise business in a retail environment whilst striving for continuous improvements in levels of services rendered.

Qualification Pack Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Reference RAS/Q0104
QP NOS Name Sales Associate
NSQF Level 4

QP NOS Name Customer Care Executive (Repair Centre)
NSQF Level 4

ISCO 08 Unit Group Details:

Code 5242
Title Sales Demonstrators

5242.0201

Customer Care Executive (Relationship Centre)

Customer Care Executive (Relationship Centre) provide customer service by handling, following and resolving walk-in customer's queries, requests and complaints and proactively recommends/sells products and services. of the organization.

Qualification Pack Details:

QP NOS Reference TEL/Q0101
QP NOS Name Customer Care Executive (Relationship Centre)
NSQF Level 4

ISCO 08 Unit Group Details:

Code 5242
Title Sales Demonstrators

5242.0301

Customer Care Executive (Repair Centre)

Customer Care Executive (Repair Centre) provides customer service by interacting with walk-in customers. They also handle, follow-up and resolve customer's queries, requests and complaints, in a timely manner.

Qualification Pack Details:

QP NOS Reference TEL/Q2200

Code 5242
Title Sales Demonstrators

5242.0401

In-Store Promoter

In-Store Promoter demonstrates and highlights the product FAB (Features, Advantages and Benefits) to walk-in customers; offers them the opportunity to touch and feel the product (s) on display; respond to queries on product and services.

Qualification Pack Details:

QP NOS Reference TEL/Q2101
QP NOS Name In-Store Promoter
NSQF Level 4

ISCO 08 Unit Group Details:

Code 5242
Title Sales Demonstrators

5242.0501

Associate Network Engineer

Supervisor, Customer Technical Services co-ordinates technical liaison services between management, production department, sales department, and customers with newly developed techniques or practices in processing company products, and to inform customers of new types, specifications, and end-uses of products. Confers with Production Department Managers to assist in specific classification of products from quality assurance position, report on new product or process technology of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

competitors, and to discuss new specifications required by customers. Directs investigation of customer complaints regarding quality, tolerances, specifications, and delivered condition of products. Records, analyses, and informs concerned personnel of production quality assurance, and sales departments of status and disposition of customer complaints and claims. Negotiates settlement of claims, for which company is responsible, within limits prescribed by management. May survey potential markets for increasing sales.

Qualification Pack Details:

QP NOS Reference	SSC/Q5102
QP NOS Name	Associate Network Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	5242
Title	Sales Demonstrators

5242.0502

Associate Operations Engineer

Associate Operations Engineer in the IT-ITeS Industry is also known a Systems Engineer. Individuals in this role assist customers on all product/service related queries. They receive calls and log in complaints from customers as per specified standards. Individuals in this role also provide technical and developer support for products/solutions via email, chat etc.

Qualification Pack Details:

QP NOS Reference	SSC/Q5101
QP NOS Name	Associate Operations Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	5242
Title	Sales Demonstrators

5242.9900

Sales Demonstrators, Other

Salesmen, Shop Assistants and Related Workers, other includes all other Salesmen, Shop Assistants and Demonstrators engaged in sales services, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	
Title	

Family 5243

Door-to-Door Salespersons

Door to Door Salespersons sell goods and services and solicit business for an establishment, by approaching or visiting potential customers, usually residents in private homes, by going from door to door.

5243.0100

News Paper Boy

News Paper Boy; Paper Wala delivers newspapers, periodicals etc. from door to door to regular customers and sells them to casual customers on footpaths, railway platform, bus stand, etc. Estimates his requirements of different types of newspapers and periodicals. Purchases required number of copies on cash payment or on credit from agencies or printers. Goes from door to door either on foot or on bicycle. Announces important and sensational news to boost up sales and delivers newspapers and periodicals to his regular customers and ensures

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

timely delivery. Keeps day-to-day record of copies delivered and collects money from customers weekly or monthly. Returns unsold copies to agents or printers. May sit on footpaths in busy localities and sell to casual customers on payment of cash. May work on commission or salary basis or both.

ISCO 08 Unit Group Details:

Code	5243
Title	Door-to-Door Salespersons

5243.0200

Order Supplier/Supplier

Order Supplier books orders by going from door to door or on shop counter by telephone or otherwise and arranges supply of required goods at stipulated time and place. Chalks out programme of visits. Interviews prospective buyers, explains features of goods and shows samples, if available. Quotes prices and business terms. Prepares order forms and books orders. Forwards orders to head office for supply. Arranges delivery of ordered goods to customers according to contract. May receive payment on behalf of producer or supplier.

ISCO 08 Unit Group Details:

Code	5243
Title	Door-to-Door Salespersons

5243.0300

Home Delivery Man

Home-Delivery Man; Deliveryman delivers goods such as provisions, bakery products, laundry etc. at customer's residence or other places as directed. Places indents with stores for supply of goods according to orders to be executed. Arranges orders according to areas or localities. Ensures that all articles are properly packed and

loaded in delivery van, push-cart, trolley or tricycle. Goes from door to door along with vehicle and delivers goods to customers according to their instructions. Collects money from customers and issues receipt for same. Ascertains further requirements of customers and books orders if necessary. Maintains accounts of deliveries made, cash and cheques, etc. collected. Returns undelivered packages to stores. May take additional goods usually in demand and sell them to customers in area or localities visited.

ISCO 08 Unit Group Details:

Code	5243
Title	Door-to-Door Salespersons

5243.0401

Distributor Sales Representative

Distributor Sales Representative needs to generate sales for mobile handset and related accessories, steer sales as per the organization's target matrix, increase width and depth of distribution and work in a specified area as per the Beat Plan and Route Plan. An individual is also responsible for handling/escalating retailer's complaints and queries as per the organizational policies and must be able to handle cash related transactions.

Qualification Pack Details:

QP NOS Reference	TEL/Q2100
QP NOS Name	Distributor Sales Representative
NSQF Level	4

ISCO 08 Unit Group Details:

Code	5243
Title	Door-to-Door Salespersons

5243.0501

Field Sales Executive (FSE)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Field Sales Executive (FSE) visits retail outlets to deliver prepaid telecom products/services to retailers, as per daily Route/Beat Plan. Individual is also responsible to achieve monthly revenue target, increase width and depth of distribution, adhere to process compliance for new customer enrolment and increase customer base.

Qualification Pack Details:

QP NOS Reference	TEL/Q0200
QP NOS Name	Field Sales
	Executive (FSE)

NSQF Level 4

ISCO 08 Unit Group Details:

Code	5243
Title	Door-to-Door Salespersons

5243.0502

Sales Executive (Broadband)

Sales Executive (Broadband) in the telecom industry is also known as Territory

Sales Executive/Territory Sales Representative/Field Sales Executive/Field Sales Representative/Feet on Street (FOS)/Business Development Executive.

Qualification Pack Details:

QP NOS Reference	TEL/Q0201
QP NOS Name	Sales Executive (Broadband)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	5243
Title	Door-to-Door Salespersons

5243.9900

Door to Door and Telephone Sales Persons, Other

Door to Door and Telephone Sales Persons, Other include workers who solicit business for an establishment, particularly from households, by going from door to door or by telephoning, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	5243
Title	Door-to-Door Salespersons

Family 5244

Contact Centre Salespersons

Contact Centre Salespersons contact existing and prospective customers, using the telephone or other electronic communications media, to promote goods and services, obtain sales and arrange sales visits. They may work from a customer contact centre or from non-centralised premises.

5244.0100

Operator, Call Centre

Call Centre Operators, Call Centre Operator receives telephone calls from potential clients and existing customers regarding the products and services offered by an organization. They answer incoming telephone calls from existing or prospective customers; interviews caller to establish the nature of any complaint or the requirements of the client; informs customers on any immediate action to be taken, advises on services available and sells additional products or services; maintains details of calls received, the action taken as a result of a call and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

updates customer records as required; arrange for field staff to visit the caller if further assistance is required. May also be called Call Centre Information Clerk

ISCO 08 Unit Group Details:

Code 5244
Title Contact Centre Sales Person

5244.0101 **CRM Domestic Voice**

CRM Domestic Voice receives and make telephone calls which are primarily scripted, basic and routine with the assistance of a computerised system. They answer inquiries, resolve problems, record complaints and/or receive feedback.

Qualification Pack Details:

QP NOS Reference	SSC/Q2210
QP NOS Name	CRM Domestic Voice
NSQF Level	4

ISCO 08 Unit Group Details:

Code 5244
Title Contact Centre Sales Person

5244.0102 **Associate-CRM**

Associate-CRM receives and make telephone calls which are primarily scripted, basic and routine with the assistance of a computerised system. They answer inquiries, resolve problems, record complaints and/or receive feedback.

Qualification Pack Details:

QP NOS Reference	SSC/Q2202
QP NOS Name	Associate-CRM
NSQF Level	5

ISCO 08 Unit Group Details:

Code 5244
Title Contact Centre Sales Person
5244.0103
Customer Relation Executive

Customer Relationship Executive is responsible for assisting and supporting sales function through telemarketing, activities such as generating sales prospects or leads through telemarketing, customer experience at the dealership showroom and supporting in their follow-ups. The CRE is also responsible for supporting the service function through follow-up calls for after-sales service.

Qualification Pack Details:

QP NOS Reference	ASC/Q1106
QP NOS Name	Customer Relation Executive
NSQF Level	4

ISCO 08 Unit Group Details:

Code 5244
Title Contact Centre Sales Person

5244.0201 **CRM Domestic Non Voice**

CRM Domestic Non Voice is responsible for resolving queries and customer cases over web-chat or email. They form the primary layer of contact with the customer and responses may be made on either pre-existing email templates or customized mails to the query requirement.

Qualification Pack Details:

QP NOS Reference	SSC/Q2211
QP NOS Name	CRM Domestic Non Voice
NSQF Level	4

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 5244

Title Contact Centre Sales Person

5244.0202

Associate Customer Care (Non Voice)

Associate Customer Care (Non Voice) is responsible for resolving queries and customer cases over web-chat or email. They form the primary layer of contact with the customer and responses may be made on either pre-existing email templates or customized mails to the query requirement.

Qualification Pack Details:

QP NOS Reference SSC/Q2201

QP NOS Name Associate Customer Care (Non Voice)

NSQF Level 5

ISCO 08 Unit Group Details:

Code 5244

Title Contact Centre Sales Person

5244.0203

Collections Executive

Collections Executive is responsible for reconciliation of customer accounts through payment follow ups, sending payment reminders, investigating and solving customers' problems, which may lead to delay in payments, communicate the right information to the customers

Qualification Pack Details:

QP NOS Reference SSC/Q2214

QP NOS Name Collections Executive

NSQF Level 4

ISCO 08 Unit Group Details:

Code 5244

Title Contact Centre Sales Person

5244.0301

Customer Care Executive

Remote Helpdesk Technician is also called 'Customer Service Executive', the Customer Care Executive is the first point of contact in providing after-sales support services and assists customers in registering complaints. The individual at work is responsible for receiving, understanding and responding to customer queries through telephone or e-mail. The individual records the complaints for follow up, co-ordinates with other departments to resolve problems and closes non-technical issues raised by customers on the call itself.

Qualification Pack Details:

QP NOS Reference ELE/Q4603

QP NOS Name Customer Care Executive

NSQF Level 3

ISCO 08 Unit Group Details:

Code 5244

Title Contact Centre Sales Person

5244.0302

Remote Helpdesk Technician

Remote Helpdesk Technician is also called Remote Resolution Executive, the Remote Helpdesk Technician provides customer support via telephone by identifying, trouble shooting and resolving the technical queries. The individual at work is responsible for receiving, understanding and resolving customers' technical queries through telephone. The individual receives the customer query from the customer-care centre and then interacts with the customer to identify the problem, understand the cause, and to trouble shoot and resolve the queries.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	ELE/Q4604
QP NOS Name	Remote Helpdesk Technician
NSQF Level	3

ISCO 08 Unit Group Details:

Code	5244
Title	Contact Centre Sales Person

cleaning, lubricating and performing minor repairs to motor vehicles.

5245.0101

Petrol Pump Salesman/Fuel Service Man/Fuel Dispensing Attendant

Fuel Service Man/Fuel Dispensing needs to work at fuel station and fill gas in the vehicles driven in the fuel station following safety procedures while filling gas.

5244.0303

Customer Care Executive (Call Centre)

Customer Care Executive (Call Centre) provide customer service support to an organization by interacting with their customers over the phone. They also handle, follow and resolve customer's queries, requests and complaints in a timely manner.

Qualification Pack Details:

QP NOS Reference	TEL/Q0100
QP NOS Name	Customer Care Executive (Call Centre)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	5244
Title	Contact Centre Sales Person

Family 5245

Service Station Attendants

Service Station Attendants sell fuel, lubricants and other automotive products and provide services such as fuelling,

Qualification Pack Details:

QP NOS Reference	ASC/Q9604
QP NOS Name	Fuel Service Man/Fuel Dispensing Attendant
NSQF Level	2

ISCO 08 Unit Group Details:

Code	5245
Title	Service Station Attendants

Family 5246

Food Service Counter Attendants

Food Service Counter Attendants serve customers at food counters and finish preparation of simple food items in restaurants, cafes, hotels, fast food outlets, cafeterias, hospitals and other settings.

Family 5249

Sales Workers Not Elsewhere Classified

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

This family includes sales workers not classified elsewhere in sub-division 52, Sales workers.

5249.0101 Key Account Service Manager

Key Account Service Manager is responsible for the proper co-ordination of management and development of key accounts within the region, to maintain and ensure customer satisfaction, drive business growth and achieve sales targets. The individual is responsible for managing availability of spare parts and their proper maintenance.

Qualification Pack Details:

QP NOS Reference	ASC/Q0604
QP NOS Name	Key Account
Service Manager	
NSQF Level	6

ISCO 08 Unit Group Details:

Code	5249
Title	Sales
Workers Not Elsewhere Classified	

5249.0200 Salesman, Wholesale Trade

Salesman, Wholesale; Sales Assistant, Wholesale sells goods in wholesale establishment to retailers and large scale consumers. Attends to customers visiting establishment and ascertains their requirements. Instructs Shop Assistant to bring samples of required goods and shows them to customers, explaining their use, mechanical complications, merits, durability and other distinguishing features. Arranges demonstration of goods if considered necessary. Quotes prices and discusses other terms of sale. Negotiates for credit facilities, date of

delivery, etc. and books orders. Arranges for delivery of goods to customers within stipulated time. Studies market trends and keeps customers informed of market conditions and fluctuations in prices. Introduces new items of goods, if any, and induces customers to purchase and stock them. Assists Wholesale Dealer in Stock-taking and other matters connected with running of Wholesale establishment. May book orders on telephone and arrange to deliver goods at given address. May grant credit facilities to customers in consultation with Wholesale Dealer. May prepare bills, receive payment for goods sold and maintain account. May work on salary or commission or on both and may be designated according to goods sold.

ISCO 08 Unit Group Details:

Code	5249
Title	Sales Workers Not Elsewhere Classified

5249.0201 Commercial Manager (Zonal/Regional)

Commercial Manager (Zonal/Regional) is responsible for supervising commercial operations at OEM offices of the defined region, and planning annual budgets for sales.

Qualification Pack Details:

QP NOS Reference	ASC/Q0204
QP NOS Name	Commercial Manager (Zonal/Regional)
NSQF Level	6

ISCO 08 Unit Group Details:

Code	5249
Title	Sales Workers Not Elsewhere Classified

5249.0202**Commercial Executive/Officer**

A Commercial Executive/Officer is responsible for facilitating the commercial operations at various OEM offices in the assigned areas, and facilitating audits through external and internal agents. They help in liaising with various financial banks/NBFCs for funding related issues both for primary sales (billing to the channel partner) and secondary sales (sorting the pending cases for vehicle loans)

Qualification Pack Details:

QP NOS Reference	ASC/Q0203
QP NOS Name	Commercial Executive/Officer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	5249
Title	Sales Workers Not Elsewhere Classified

5249.0301**Salesman, Retail Trade**

Salesman, Retail Sales/Assistant, Retail Counter Salesman; sells goods to customers in retail establishment. Arranges display of goods in shop. Attends to customer visiting shop. Ascertains his requirements. Shows him different varieties of required goods or articles, explaining their use, merits, durability and other distinguishing features, quotes prices and helps customers in selecting goods. Measures and weights goods ordered and packs them in paper bag, carton etc. Hands over packet to customer and collects money from him. May prepare cash-memos, collect money and

hand it over to cashier of Retail Dealers. Ensures that goods are kept in neat and tidy manner. May be designated according to type of goods sold.

Qualification Pack Details:

QP NOS Reference	ELE/Q3202
QP NOS Name	In-Store Demonstrator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	5249
Title	Sales Workers Not Elsewhere Classified

5249.0400**Wholesale Dealer**

Wholesale Dealer; Whole Seller; Merchant and Shopkeeper, Wholesale Trade purchases goods in bulk direct from manufacturers, producers or importers and runs wholesale business, working on own account, by selling them for profit to Retailers industrial, commercial and other large consumers. Studies market trends and estimates requirements of goods in which he deals. Ascertains prevailing rates and examines them for making purchases at competitive rates. Contacts producers, manufacturers or other agents, settles terms and conditions of purchase and places orders for goods required. Ensures that goods supplied conform to required standards. Displays and shows samples of goods to customers. Books orders and arranges supply of goods to customers within stipulated time. Extends credit facilities to customers and advises them on supply and demand position of goods and prevailing market prices. Keeps in touch with Government rules and regulations such as sales-tax, income-tax, shop and commercial establishment act, etc. Maintains records of purchases and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

sales effected. Attends to correspondence relating to business. May publicise goods to stimulate sales. May act as Commission Agent, Selling Agent, Stockist etc. for goods in which he deals.

ISCO 08 Unit Group Details:

Code 5249

Title Sales Workers Not Elsewhere
Classified

5249.0500

Retail Dealer

Retail Dealer; Retailer; Merchant and Shopkeeper, Retail Trade purchases goods in small quantities and runs retail business, working on own account, by selling them to customers. Estimates requirements of goods. Contacts Wholesale Dealers, Selling Agent, Stockists etc. and purchases goods at competitive rates. Ensures neatness and cleanliness of premises and proper display and storage of goods. Checks stock and sales registers every morning. Prepares bills or cash memos for goods sold and collects money from customers. Extend credit facilities to regular and reliable customers. Studies market fluctuations intelligently to decide selling prices of goods in stock. Maintains day-to-day account of transactions made. Performs all tasks usually assigned to Salesmen or Shop Assistants in big establishments such as attending and showing goods to customers, weighing, measuring and packing goods etc. May attend to correspondence and perform clerical tasks.

ISCO 08 Unit Group Details:

Code 5249

Title Sales Workers Not Elsewhere
Classified

5249.0600

Selling Agent

Selling Agent sells goods in allotted area on behalf of one or more producers, or manufactures according to their instructions on salary or commission basis. Introduces his products in allotted area by displaying samples, distributing catalogues, contacts by Commercial Traveller and other publicity media. Keeps stock of goods as necessary. Discusses and finalises terms regarding sales, commission, credit facilities, etc. Books orders and supplies products either from stock in hand or arranges expeditious supply through his principals. Keeps record of transactions made and charges commission on sales effected. Attends to all correspondence, enquiries relating to sale and servicing of goods sold or supplied. Keeps producer or manufacturer informed of market conditions, competitive products, etc. and devises means to promote sales in consultation with him. May appoint sub-agents, if necessary. May undertake servicing and repairing of goods supplied. May be known as Sole Selling Agent if producer or manufacturer has no other agent in area. May be designated according to products sold.

ISCO 08 Unit Group Details:

Code 5249

Title Sales Workers Not Elsewhere
Classified

5249.0700

Stockist

Stockist stocks goods of one or more producers or manufacturers and sells them to dealers or large consumers at prescribed rates. Contacts producers, manufacturers or their agents to discuss and settle terms and conditions of sales,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

rate of commission, credit facilities etc. Estimates requirements and places orders with producers, manufacturers or their agents for supplying goods. Ensures that goods supplied conform to agreed standards. Arranges for proper storage of goods and sells them to dealers or large consumers at prescribed rates. Extends credit facilities to customers if effected. Collects his commission from producers, manufacturers or agents. Keeps in touch with Government rules and regulations on sales-tax, income-tax, shop and commercial establishment Act, etc. and maintains necessary records. May supply goods against orders booked by authorised employees of producers and manufacturers. May also work as Purchasing Agent, Selling Agent, etc. on behalf of Government or other agencies.

ISCO 08 Unit Group Details:

Code 5249

Title Sales Workers Not Elsewhere Classified

Sub Division 53

Personal Care Workers

Personal care workers provide care, supervision and assistance for children, patients and elderly, convalescent or disabled persons in institutional and residential settings.

Tasks performed by workers in this sub-major group usually include: assisting with mobility, washing and other personal needs; assisting children individually to learn social skills; supervising and participating in activities that enhance the child's physical, social, emotional and intellectual development in schools and preschool; observing and reporting concerns to appropriate medical or social service worker.

Occupations in this Sub Division are classified into the following Groups:

531	Child Care Workers and Teachers' Aides
532	Personal Care Workers in Health Services

Group 531

Child Care Workers and Teachers' Aides

Child Care Workers and Teachers' Aides provide care and supervision for children in schools, residential homes and child care facilities.

Occupations in this Group are classified into the following Families:

5311	Child Care Workers
5312	Teachers' Aides

Family 5311

Child Care Workers

Child-care workers provide care and supervision for children in residential homes and in before-school, after-school, vacation and day care centres.

5311.0100

Ayah, Institutional

Ayah; Maid (Institutional) attends to comfort of women residents in hotels, waiting rooms, clubs, and other institutions and looks after their children. Prepares beds for women residents and their children. Bathes children and dresses them and dusts and cleans rooms. Washes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

clothes of children and women residents. Takes out children to public parks for playing and other recreation. Feeds children. May escort children to and from school and look after their comfort and be called 'AYAH SCHOOL'. May be known as 'AYAH, WAITING ROOM', when looking after lady passengers in waiting room at Railway or bus stations.

ISCO 08 Unit Group Details:

Code	5311
Title	Child Care Workers

5311.0200

Child Care Worker

Child Care Worker attends to children at schools, businesses, private households, and child care institutions. Performs a variety of tasks, such as dressing, feeding, bathing, and overseeing play. Supports children's emotional and social development, encouraging understanding of others and positive self-concepts. Cares for children in institutional setting, such as group homes, nursery schools, private businesses, or schools for the differently-abled. Sanitises toys and play equipment. Disciplines children and recommend or initiate other measures to control behaviour, such as caring for own clothing and picking up toys and books. Identifies signs of emotional or developmental problems in children and bring them to parents' or guardians' attention. Observes and monitors children's play activities. Keeps records on individual children, including daily observations and information about activities, meals served, and medications administered. Instructs children in health and personal habits such as eating, resting, and toilet habits. Reads to children, and teaches them simple painting, drawing, handicrafts, and songs. Organizes and

participates in recreational activities, such as games.

ISCO 08 Unit Group Details:

Code	5311
Title	Child Care Workers

5311.0300

Governess

Governess cares for children in private home and looks after their recreation, diet, health and development. Teaches children good health and personal habits and assists them in their studies. Arranges parties, outings and picnics for children. Takes disciplinary measures to control children's behaviour. Ascertain cause of behaviour problems of children and devises means for solving them. May teach foreign language to children cared for. May be designated as NURSERY GOVERNESS if engaged to care for young children.

ISCO 08 Unit Group Details:

Code	5311
Title	Child Care Workers

5311.0400

Ayah, Domestic

Ayah; Nurse Maid (Domestic) takes care of children in private households. Attends to the requirements of the children and watches over their activities. Assists children in bathing, dressing and feeding. Takes them out for walks and recreation and plays and exercises with children. Washes their garments. Takes infants out in hand-cart or perambulator. May perform other house-hold work, not connected with child care. May be known as WET NURSE if she feeds infant with her own milk.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 5311
Title Child Care Workers

5322	Home-Based Personal Care Workers
5329	Personal Care Workers in Health Services, Not Elsewhere Classified

5311.9900

Child Care Workers, Other

Childcare Workers, other include all other workers engaged in taking care of employers' children and oversee their daily activities, or engage in helping teachers to look after school children.

ISCO 08 Unit Group Details:

Code 5311
Title Child Care Workers

Family 5312

Teachers' Aides

Teachers' aides perform non-teaching duties to assist teaching staff, and provide care and supervision for children in schools and pre-schools.

Group 532

Personal Care Workers in Health Services

Personal care workers in health services provide personal care and assistance with mobility and activities of daily living to patients, and elderly, convalescent and disabled people in health care and residential settings.

Occupations in this Group are classified into the following Families:

5321 Health Care Assistants

Family 5321

Health Care Assistants

Health Care Assistants provide direct personal care and assistance with activities of daily living to patients and residents in a variety of health care settings such as hospitals, clinics, and residential nursing care facilities. They generally work in implementation of established care plans and practices, and under the direct supervision of medical, nursing or other health professionals or associate professionals.

Family 5322

Home-Based Personal Care Workers

Home-based personal care workers provide routine personal care and assistance with activities of daily living to persons who are in need of such care due to effects of ageing, illness, injury, or other physical or mental condition in private homes and other independent residential settings.

5322.0101

Home Health Aide

Home Health Aide (HHA) is also known as Home Health Provider and Unlicensed Assistive Personnel (UAP). Provide routine individualised healthcare to the elderly,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

convalescents, or persons with disabilities at the patient's home. Monitor or report changes in health status. Provide personal care such as bathing, dressing, and grooming of patient.

Qualification Pack Details:

QP NOS Reference	HSS/Q5102
QP NOS Name	Home Health Aide
NSQF Level	3

ISCO 08 Unit Group Details:

Code	5322
Title	Home Based Personal Care Workers

5322.9900

Home Based Personal Care Workers, Other

Home-Based Personal Care Workers, other include personal care workers who attend to various personal needs and in general provide personal care for persons in need of such care at their own homes because of physical or mental illness or disability or because of impairment due to old age not elsewhere classified.

ISCO 08 Unit Group Details:

Code	5322
Title	Home Based Personal Care Workers

Family 5329

Personal Care Workers in Health Services, Not Elsewhere Classified

T family covers personal care workers in health services not classified elsewhere in. For instance the group includes occupations such as Dental aid,

Sterilization aid, Hospital orderly, Medical Imaging Assistant and Pharmacy aid.

5329.0101

General Duty Assistant

General Duty Assistant Healthcare (GDA) is also known as "Nursing Care Assistants", "Nursing Assistant", "Nursing Aides", "Bedside Assistants" or "Orderlies" when working in a hospital environment. Individual on the job provides patient care and help maintain a suitable environment. Some of the key responsibilities of the General Duty Assistant are to provide patient's daily care, patient's comfort, patient's safety and patient's health needs.

Qualification Pack Details:

QP NOS Reference	HSS/Q5101
QP NOS Name	General Duty Assistant
NSQF Level	3

ISCO 08 Unit Group Details:

Code	5329
Title	Personal Care Workers in Health Services Not Elsewhere Classified

Sub Division 54

Protective Service Workers

Protective services workers protect individuals and property against fire and other hazards, maintain law and order and enforce laws and regulations

Tasks performed by workers in this sub-major group usually include: preventing, fighting and extinguishing fires; rescuing people from burning buildings and accident sites and those trapped in dangerous situations; maintaining law and order, enforcing laws and regulations,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

patrolling public areas and arresting suspected offenders; directing traffic and assuming authority in the event of accidents; watching over and maintaining order among inmates of prisons, reformatories or penitentiaries; patrolling or monitoring premises to guard property against theft and vandalism, controlling access to establishments and maintaining order and enforcing regulations at public events and within establishments. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

541 Protective Service Workers

Group 541 Protective Service Workers

Protective services workers protect individuals and property against fire and other hazards, maintain law and order and enforce laws and regulations.

Occupations in this Group are classified into the following Families:

5411 Fire-fighters
5412 Police Officers
5413 Prison Guards
5414 Security Guards
5419 Protective Services Workers, Not Elsewhere Classified

Family 5411

Fire-fighters

Fire-fighters prevent, fight and extinguish fires and assist in other emergencies,

protect life and property and conduct rescue efforts.

5411.0100 Fire Fighter

Fire Fighter; Fireman (Fire Service), fights fires as member of firefighting force using firefighting equipment to extinguish fire, rescue people and property from fire and performs sentry duty. Visits scene of fire on motor vehicle equipped with firefighting material, water pumps etc. on receipt of fire information. Connects and mans hose to spray water or chemicals on fire, or uses portable fire extinguisher in places not accessible with hose. Demolishes parts of buildings or other structure as necessary, to clear passage and to prevent further spread of fire. Rescues trapped persons and administers artificial respiration to those overcome by heat or fire. Maintains firefighting equipment in perfect condition and performs sentry duty at fire station according to roster. May perform other services during emergencies or natural calamities such as flood, storm by rescuing people in danger, manning hoses to assist police to control rioters, extricating persons or animals from places not easily accessible etc. May drive fire truck. May undertake minor repairs to equipment.

ISCO 08 Unit Group Details:

Code 5411
Title Fire-fighters

5411.9900

Fire Fighters, Other

Fire Fighters, other include all other Fire Fighters engaged in extinguishing or controlling fire not elsewhere classified.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 5411
Title Fire-fighters

Family 5412 **Police Officers**

Police officers maintain law and order, patrolling public areas, enforcing laws and regulations and arresting suspected offenders.

5412.0100 **Police Constable**

Police Constable; Constable maintains law and order in his beat, serves summons and warrants, arrests criminals, controls traffic and guards treasures and important Government establishments and property. Receives instructions about his duty and special assignments. Gets familiarised with the area and people living in the beat and watches suspicious characters and disreputable establishments and reports to superior officers any unusual or unexplained events. Performs services such as serving summons and warrants, Directs traffic, assuming authority in case of accident, rendering first aid to injured. Conducts investigation of petty cases and arrests criminals under warrant and keep them into custody, escorts criminals to jail, court or in journey. Guards Government securities, and prohibited areas and establishments. Keeps records, and makes report of activities to his superior officers. May perform duties of armed guard, criminal investigation, traffic control and be designated as CONSTABLE, ARMED POLICE; CONSTABLE, C.I.D.; CONSTABLE, TRAFFIC.

ISCO 08 Unit Group Details:

Code 5412
Title Police Officers

5412.0200 **Sepoy, Customs**

Sepoy, Customs; protects national borders, ports, aerodromes, etc. by preventing smuggling of goods. Guards vital points in Docks, Bunders and airports. Keeps watch over suspected vessels and assists Searcher, Customs in carrying out searches when ordered. Escorts uncleared packages to godowns for deposit. May be required to work as peon.

ISCO 08 Unit Group Details:

Code 5412
Title Police Officers

5412.0300 **Constable, Excise**

Constable, Excise examines baggage's, houses, shops, etc. for preventing smuggling or manufacture, storage and sale of illicit goods. Examines luggage of passengers in railway trains, or platform, bus stations to detect illegal possession. Searches shops, godowns, houses for illegal storage of excisable goods. Guards exits of factory and reports cases of unauthorized or illegal traffic of goods to Excise Inspector. Checks consignments physically with relevant clearance documents when excisable goods are being removed from factories, godowns, etc. May perform unskilled office duties e.g. Carrying of dak.

ISCO 08 Unit Group Details:

Code 5412
Title Police Officers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

5412.9900

Police Officers, Other

Police Officers, other include all other protective services officers involved in maintaining law and order and enforcing laws and regulations not elsewhere classified.

ISCO 08 Unit Group Details:

Code	5412
Title	Police Officers

Family 5413

Prison Guards

Prison guards watch over and maintain order among inmates of prisons, reformatories or penitentiaries.

5413.0100

Warder, Jail

Warder, Jail, guards inmates of jails, reformatory or penitentiary, sees to their needs and maintains discipline. Searches arriving prisoners, and puts their valuables in safe custody. Escorts prisoners to cell and locks them in and makes periodic inspection of cells. Supervises prisoners at work and patrols prison areas and walls to prevent escape of prisoners. Counts prisoners at odd hours and reports missing or shortage to Head Warder or Jailer. Supervises serving of meals to prisoners and reports illness of convicts to Jailer. May serve meals to prisoners. May teach prisoners in any craft or vocation.

ISCO 08 Unit Group Details:

Code	5413
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Title	Prison Guards
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5413.9900

Prison Guards, Other

Prison Guards, other include those who watch over and maintain discipline among inmates of prisons, reformatories or penitentiaries not elsewhere classified.

ISCO 08 Unit Group Details:

Code	5413
Title	Prison Guards

Family 5414
Security Guards

Security guards patrol or monitor premises to guard property against theft and vandalism. They control access to establishments and maintain order and enforce regulations at public events and within establishments.

5414.0101

Security Officer

Security Officer makes arrangements to guard industrial plants, establishments, buildings and other property from fire, thefts, pilferage and unauthorized entry, and enforces such preventive measures as necessary to eliminate them. Plans, controls and supervises security arrangements of industrial plants, establishments, buildings, men, material and other moveable and immovable property against fire, thefts; pilferage, unauthorized entry and personal hazards. Allots duties to security personnel at the gates of workshops, stores, ware-houses, water works and administrative buildings to check unauthorized entry of men and passage of material. Issues gate passes to visitors desiring entry into restricted

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

premises and checks security personnel on duty. Enquires in to complaints of unauthorized entry of men and material and cases of theft etc. and reports the matter to police for further action. Maintains discipline amongst security personnel. Looks after welfare of security personnel such as housing, messing, arranges their transfers from one department to another; assists firefighting personnel in case of fires.

Qualification Pack Details:

QP NOS Reference	SKS/Q0601
QP NOS Name	Security Officer
NSQF Level	6

ISCO 08 Unit Group Details:

Code	5414
Title	Security Guards

5414.0102

Assignment Manager

Assignment Managers carry out site-specific threats and risks assessment, plan and organize security; help clients in developing Standard Operating Procedures (SOP) and site instructions. They are responsible for development of a security plan and deployment of manpower and equipment for executing a security plan. Assignment Managers assess the efficacy of security unit's guarding operations, training standards and preparedness to deal with emergencies through security officers. Planning, training, deployment, administration, documentation, reporting and liaison are some of the important tasks of Assistant Managers.

Qualification Pack Details:

QP NOS Reference	SKS/Q0701
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QP NOS Name	Assignment Manager
NSQF Level	6

ISCO 08 Unit Group Details:

Code	5414
Title	Security Guards

5414.0111

Security Supervisor

Security Supervisors take over a shift and organizes guarding duties as per organizational procedure and instructions from superiors. They are responsible for deployment of manpower and resources optimally. They allot duties to individuals and supervise their work. Supervisors also carry out security documentation, report security incidents to designated superior and agencies like police, fire and medical, as the case may be.

Qualification Pack Details:

QP NOS Reference	SKS/Q0301
QP NOS Name	Security Supervisor
NSQF Level	5

ISCO 08 Unit Group Details:

Code	5414
Title	Security Guards

5414.0121

CCTV Supervisor

CCTV Supervisor needs to know the basics of private security, supervision of security unit operations and spectrum of threats and risks to security and safety. CCTV Supervisors observe designated premises through CCTV systems; pick up early indications of problems pertaining to security and safety and respond appropriately by alerting various agencies.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	SKS/Q0501
QP NOS Name	CCTV Supervisor
NSQF Level	5

ISCO 08 Unit Group Details:

Code	5414
Title	Security Guards

ISCO 08 Unit Group Details:

Code	5414
Title	Security Guards

5414.0151

Armed Security Guard

Armed Security Guard entails guarding designated premises and people. The core responsibility of an Armed Security Guard includes guarding life, property and premises against threats and risks. The role requires initiative and effective communication

Qualification Pack Details:

QP NOS Reference	SKS/Q0201
QP NOS Name	Armed Security Guard
NSQF Level	4

ISCO 08 Unit Group Details:

Code	5414
Title	Security Guards

5414.0171

Personal Security Officer

Personal Security Officer protects the principal against possible threats. A PSO is required to operate within the confines of the assigned tasks and are required to operate alone or as part of a team both in armed and unarmed roles.

Qualification Pack Details:

QP NOS Reference	SKS/Q0401
QP NOS Name	Personal Security Officer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	5414
Title	Security Guards

5414.0200

Home Guard

Home Guard assists police in maintaining law and order and serves as second line of defence in cases of emergencies. Reports to respective police station or area headquarter as scheduled, according to duty roster or standing orders and receives instructions on tasks assigned. Visits allotted area and assists police in maintaining law and order, regulating traffic, preventing crimes and other civic duties as may be assigned. Instructs people on air raid precautions, fire-fighting, first aids etc., and keeps up their morale during emergencies. Performs security and civil defence services, when required. May assist in guarding Govt. buildings, important places, railway stations, etc.

ISCO 08 Unit Group Details:

Code	5414
Title	Security Guards

5414.0400

Watchman

Watchman; Chowkidar guard buildings, premises, industrial plants, ware-houses, railway goods-sheds and yards etc. against fire, theft, illegal entry and other such contingencies. Receives instructions about his duty, patrols around buildings and premises frequently, examining doors, windows and gates and ensures that they are properly secured and have not been tampered with. Watches for fire hazards, broken water pipes, presence of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

unauthorized persons. Reports irregularities or anything, found tampered to authorities. Informs police, fire brigade in emergency. May use tell-tale watches to record inspection rounds at specified time. May attend to telephone calls, cleaning of floors, furniture and switching off lights and fans when not in use.

ISCO 08 Unit Group Details:

Code 5414
Title Security Guards

5414.0501

Gateman/Unarmed Security Guard

Gateman; Darban; Security Guard checks entrance and exit of unauthorized persons and goods to and from residential and commercial buildings, industrial premises etc. Attends entrance or exit of premises at specified hours. Checks gate passes, where provided, for authorized entry or exit of persons and goods to and from premises. Ascertains purpose of visit from outside caller and guides bona fide visitor to appropriate persons or place or directs visitor to enquiry or other proper authority for grant of pass or permission where entry without pass is restricted. Searches persons, vehicles and checks goods at exit for contraband articles, where required. Collects passes or tokens issued to visitor and forwards them to concerned authority at end of his duty. Reports unauthorized entry and suspicious occurrences to superior officers. May detain unauthorized persons and inform his superior or police. May maintain visitors book at entrance and allow visitors to enter premises after recording relevant particulars.

Qualification Pack Details:

QP NOS Reference SKS/Q0101

QP NOS Name	Unarmed Security Guard
NSQF Level	4

ISCO 08 Unit Group Details:

Code 5414
Title Security Guards

Family 5419

Protective Services Workers, Not Elsewhere Classified

This family covers protective services workers not classified elsewhere in the group 541, Protective services workers. For instance, this family includes lifeguards, crossing guards and animal control officers.

Division 6

Skilled Agricultural, Forestry and Fishery Workers

Skilled agricultural, forestry and fishery workers grow and harvest field or tree and shrub crops, gather wild fruits and plants, breed, tend or hunt animals, produce a variety of animal husbandry products, cultivate, conserve and exploit forests, breed or catch fish and cultivate or gather other forms of aquatic life in order to provide food, shelter and income for themselves and their households.

Tasks performed by skilled agricultural, forestry and fishery workers usually include: preparing the soil; sowing, planting, spraying, fertilising and harvesting field crops; growing fruit and other tree and shrub crops; growing garden vegetables and horticultural products; gathering wild fruits and plants;

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

breeding, raising, tending or hunting animals mainly to obtain meat, milk, hair, fur, skin, sericulture, apriarian or other products; cultivating, conserving and exploiting forests; breeding or catching fish; cultivating or gathering other forms of aquatic life; storing and carrying out some basic processing of their produce; selling their products to purchasers, marketing organizations or at markets. Supervision of other workers may be included.

Occupations in this Division are classified into the following Sub Divisions:

61	Market Oriented Skilled Agricultural Workers
62	Market Oriented Skilled Forestry, Fishery and Hunting Workers
63	Subsistence Farmers, Fishers, Hunters and Gatherers

Sub Division 61 Market Oriented Skilled Agricultural Workers

Market-oriented skilled agricultural workers plan, organize and perform farming operations to grow and harvest field or tree and shrub crops and produce a variety of animals and animal products for sale or delivery on a regular basis to wholesale buyers, and marketing organizations or at markets

Tasks performed by workers in this sub-major group usually include: preparing the soil; sowing, planting, spraying, fertilising and harvesting field crops, growing fruit and other tree and shrub crops; growing garden vegetables and horticultural products; raising, breeding and tending animals mainly to obtain meat, milk, hair, fur, skin, sericulture, apriarian or other products; storing and carrying out some

processing of produce; selling their products to purchasers, marketing organizations or at markets. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

611	Market Gardeners and Crop Growers
612	Animal Producers
613	Mixed Crop and Animal Workers

Group 611 Market Gardeners and Crop Growers

Market gardeners and crop growers plan, organize and perform operations to grow and harvest field crops, to grow fruit and other tree and shrub crops, to grow garden vegetables and medicinal and other plants, and to produce horticultural and horticultural nurseries products, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Occupations in this Group are classified into the following Families:

6111	Field Crop and Vegetable Growers
6112	Tree and Shrub Crop Growers
6113	Gardeners, Horticultural and Nursery Growers
6114	Mixed Crop Growers
6115	Medicinal and Aromatic Plant Cultivators
6116	Agriculture Information Management

Family 6111

Field Crop and Vegetable Growers

Field crop and vegetable growers plan, organize and perform farming operations to grow and harvest various types of field crop such as wheat and other cereals, rice, beetroot, sugar-cane, ground-nuts, tobacco, reed or other field crops and potatoes, cabbages or other field vegetables, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

6111.0100

Cultivator, General

Cultivators, General; Farmer, General; grows crops, vegetables, fruits, etc. depending upon soil, irrigation facilities, market, etc., and sells produce. Determines crops to be grown depending on nature of soil, climate, irrigation and marketing facilities. Selects and purchases good seed, fertiliser, implements and other items of farm equipment including machinery. Clears field of stones, grass, shrubs, trees etc., using hand tools. Prepares plots by raising 'bund' (earthwork) around them for retention of water. Tills land using plough or tractor and breads loads. Sows seeds and levels earth. Makes channels connecting land to source of water for irrigation. Conducts weeding and hoeing to conserve moisture. Prepares manure by collecting and storing farmyard refuse into ditch and covering it with earth. Sprays insecticides, evolves measures to protect crops from destruction by plant diseases and wild animals and nurses growing crops by picking wild growth. Harvests matured crops using sickle etc. Collects harvested crop into bundles and carries it to the threshing ground when completely dried by sun. Threshes harvested crop by treading bullocks or machine. Separates

grain from straw by winnowing. Bags corn, bundles straw and stores corn in godown. Sells produce in market. Hires labourers when necessary and supervises their work. Maintains equipment, building, fences etc. in good order. May operate tractor, winnowing, threshing and other machines. May breed animals. May do share cropping or take land on lease for cultivation.

ISCO 08 Unit Group Details:

Code 6111

Title Field Crop and Vegetable Growers

6111.0101

Paddy Farmer

Paddy Farmer cultivates paddy as per the package of practices recommended for a particular agronomic climate zone, type of soil, rainfall pattern and climatic conditions to achieve the yields as per the genetic potential of a given variety and sell the produce in the market.

Qualification Pack Details:

QP NOS Reference AGR/Q0101

QP NOS Name Paddy Farmer

NSQF Level 4

ISCO 08 Unit Group Details:

Code 6111

Title Field Crop and Vegetable Growers

6111.0200

Cultivator, Crop

Cultivator, Crop; Farmer, Crop grows field crops of wheat, paddy, cotton, sugar cane etc., according to type of land and irrigation facilities available. Determines type of crop to be grown according to nature of soil, climatic conditions, irrigation and marketing facilities in that

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

area. Selects and purchases seeds, fertilises and other items of farm equipment including machinery. Clears land of grass, stones etc. using spades and other tools. Divides farm into easy portions (fields) and raises boundary round them for retention of water. Ploughs land or breaks it by means of tractor or other implements to soften earth and increase fertility. Connects land with source of water by digging channels for irrigation as required. Sows by broadcasting seeds in field and levelling up with wooden plough. Conducts weeding and hoeing to conserve moisture. Fences farm using barbed wire or thorny bushes to prevent destruction of crops by animals and trespassing. Sprays insecticides and evolves measures to protect crop from plant diseases, insects and pests. Nurses growing crops by careful watch and harvests matured crops using sickle or other harvesting implements or machines. Collects and preserves seeds. Collects harvested crop into bundles and removes to threshing floors. Dries harvested crop in sun. Threshes crop and winnows to separate grain from chaff. Bags and transports yield by carts for storage and sale in market. Hires labourers if required and supervises their work. Prepares manure by collecting and storing cow dung into ditch. Keeps equipment, building, fences etc. in good order. May operate tractor, winnowing, threshing and other machines, May breed animals.

ISCO 08 Unit Group Details:

Code 6111

Title Field Crop and Vegetable Growers

6111.0201

Wheat Cultivator

Wheat Cultivator cultivates wheat as per the package of practices recommended for a particular agro climate zone, type of soil, rainfall pattern and climatic condition to achieve the yield as per the genetic potential of given variety and sell the produce as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference AGR/Q0102

QP NOS Name Wheat Cultivator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 6111

Title Field Crop and Vegetable Growers

6111.0301

Maize Cultivator

Maize Cultivator undertakes the cultivation of maize crop at the farm level. The individual is also responsible for harvesting the maize crop. The maize cultivator needs to adapt recommended practices for a particular agro climate zone, type of soil, rainfall pattern and climatic conditions to achieve the best possible yield

Qualification Pack Details:

QP NOS Reference AGR/Q0103

QP NOS Name Maize Cultivator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 6111

Title Field Crop and Vegetable Growers

6111.0401

Pulses Cultivator

Pulses Cultivator undertakes the cultivation of pulses at the farm level. The

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

individual is also responsible for harvesting the pulses. The pulses cultivator needs to adapt recommended practices for a particular agro climate zone, type of soil, rainfall pattern and climatic conditions to achieve the best possible yield

Qualification Pack Details:

QP NOS Reference	AGR/Q0104
QP NOS Name	Pulses Cultivator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6111
Title	Field Crop and Vegetable Growers

6111.0501

Soya bean Cultivator

Soya bean Cultivator undertakes the cultivation of oilseeds at the farm level. The individual is also responsible for harvesting the soya bean. The Soya bean Cultivator needs to adapt recommended practices for a particular agronomic climate zone, type of soil, rainfall pattern and climatic conditions to achieve the best possible yield

Qualification Pack Details:

QP NOS Reference	AGR/Q0201
QP NOS Name	Soya bean
Cultivator	

ISCO 08 Unit Group Details:

Code	6111
Title	Field Crop and Vegetable Growers

6111.0601

Cotton Cultivator

Cotton Cultivator undertakes the cultivation of cotton crop at the farm level. The individual is also responsible for harvesting the cotton crop. The Cotton Cultivator needs to adapt recommended practices for a particular agro climate zone, type of soil, rainfall pattern and climatic conditions to achieve the best possible yield.

Qualification Pack Details:

QP NOS Reference	AGR/Q0202
QP NOS Name	Cotton Cultivator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6111
Title	Field Crop and Vegetable Growers

6111.0701

Sugarcane Cultivator

Sugarcane Cultivator undertakes the cultivation of sugarcane crop at the farm level. The individual is also responsible for harvesting the sugarcane crop. The Sugarcane Cultivator needs to adapt recommended practices for a particular agro climatic zone, type of soil, rainfall pattern and climatic conditions to achieve the best possible yield.

Qualification Pack Details:

QP NOS Reference	AGR/Q0203
QP NOS Name	Sugarcane
Cultivator	

NSQF Level	4
ISCO 08 Unit Group Details:	
Code 6111	

6111.0800

Cultivator, Fruit

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Cultivator, Fruit: Farmer, Fruit grows varieties of nuts and fruits depending on type of soil, climate, irrigational and transport facilities. Determines type of nuts or fruits to be grown based on nature of soil, climatic conditions and irrigational facilities. Selects and purchases seeds, seedlings, cutting, etc. fertilizer and agricultural equipment required for cultivation. Prepares land for planting by ploughing, manuring, levelling, etc. Plants seedlings and cuttings or sow seeds and irrigates fields. Arranges regular supply of water by digging channels to source of water. Prepares manure for use in cultivation by storing farm yard refuse to get converted into usable manure. Weeds and hoes grass and prunes branches of fruit plants by hand tools to facilitate better growth and yield. Sprays insecticide and evolves measures to protect fruits from wild animals, etc. Checks maturity of fruits and plucks ripe fruits by hand at appropriate time. Develops different varieties of trees by grafting, budding, etc. Transports plants and fruits by carts or automobile and sells them. Hires labourers when needed and supervises their work. Keeps fences, building and agricultural tools and implements in good condition. May prepare seedbeds and raise seedlings for own use and for sale. May specialize in cultivating any particular type of fruit. May arrange preservation of fruits in cold storage. May specialize in grafting or budding.

ISCO 08 Unit Group Details:

Code 6112
Title Tree and Shrub Crop Growers

6111.0851 Coconut Grower

Coconut Grower cultivates coconut as per the package of practices recommended

for a particular agronomic climate zone, type of soil, rainfall pattern and climatic conditions to achieve the coconut yields as per the genetic potential of a given variety and sell the products as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference AGR/Q0503
QP NOS Name Coconut Grower
NSQF Level 4

ISCO 08 Unit Group Details:

Code 6112
Title Tree and Shrub Crop Growers

6111.0852

Friends of Coconut Tree

Friends of Coconut Tree has to climb coconut palms with the help of a climbing machine. He has to identify tender/mature nuts, harvest it and handle them with care and also clean the crown of the coconut palms. He should be able to identify the types of pests and diseases of coconut and apprise and help farmers to adopt Integrated pests and disease management practices. He will look into various aspects of coconut crop management and should be able to apprise farmers regarding needed improvement.

Qualification Pack Details:

QP NOS Reference AGR/Q0504
QP NOS Name Friends of Coconut Tree
NSQF Level 3

ISCO 08 Unit Group Details:

Code 6112
Title Tree and Shrub Crop Growers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

6111.0901

Banana Farmer

Banana Farmer cultivates banana as per the package of practices recommended for a particular agronomic climate zone, type of soil, rainfall pattern and climatic condition to achieve the yield as per the genetic potential of given variety and sell the produce as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference	AGR/Q0201
QP NOS Name	Banana Farmer
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Growers

6111.1001

Mango Grower

Mango Grower cultivates mangoes as per the recommended practices for a given agro economic zone and achieve the expected yield. He is also responsible for hygienic harvest and post-harvest of the mango crop and ensuring sale of the same.

Qualification Pack Details:

QP NOS Reference	AGR/Q0402
QP NOS Name	Mango Grower
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Growers

6111.1101

Citrus Fruit Grower

Citrus Fruit Grower cultivates citrus fruit as per the package of practices

recommended for a particular agronomic climate zone, type of soil, rainfall pattern and climatic condition to achieve the yield as per the genetic potential of given variety and sell the produce as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference	AGR/Q0403
QP NOS Name	Citrus Fruit Grower
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Growers

6111.1200

Viniculturist

Viniculturist; Grape Cultivator cultivates grapes for commercial use. Determines varieties of grapes to be grown, according to soil, weather and market conditions. Selects and purchases vine stock, fertilizer and farm machinery. Hires workers to prepare soil, layout new plantings and train young stock. Operates farm machinery and directs workers to apply fertilizer and pesticides to crop. Decides when and how to bud, graft, prune, cultivate, and harvest crop. Arranges with buyers for sale of crop.

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Growers

6111.1300

Cultivator, Vegetables

Cultivator, Vegetables; Farmer, Vegetables grows variety of vegetables according to soil, season and demand. Determines vegetables to be grown taking

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

into consideration nature of soil, irrigation facilities, climatic conditions, consumption and market values. Selects and purchases seed, fertilisers and other items of farm equipment including machines. Ploughs land adopting indigenous methods or breaks land by tractor. Divides land into small plots by raising small bunds (earthwork) around for retention of water and manure. Clears land by removing grass, stones, etc. by hand. Mixes manure with soil, sows seeds by spreading over ground and levelling or plant cutting and irrigates field as required, by digging out drains and connecting them to source of water. Fences farm if required with barbed wire or thorny bushes for protection. Spray insecticides and takes other protective measures against plant diseases and destruction by wild animals, pests etc. Hoes and weeds fields to conserve moisture. Harvests matured vegetables by cutting with knife or pulling or digging out from ground using hand tools. Transports vegetables to market place for sale. Hires labourers on cultivation if required and supervises their work. Keeps buildings, fences and other agricultural equipment in good repairs. Collects farmyard refuse to convert it into manure. May operate tractor for preparing fields. May arrange to keep vegetables in cold storage. May specialize in growing any particular kind of vegetable like peas, potatoes, etc.

ISCO 08 Unit Group Details:

Code 6111
Title Field Crop and Vegetable Growers

6111.1401

Bulb Crop Cultivator

Bulb Crop Cultivates bulb crops as per the package of practices recommended for a particular agronomic climate zone, type of

soil, rainfall pattern and climatic condition to achieve the yield as per the genetic potential of given variety and sell the produce as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference	AGR/Q0501
QP NOS Name	Bulb Crop Cultivator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 6111
Title Field Crop and Vegetable Growers

6111.1501

Solanaceous Crop Cultivator

Solanaceous Crop Cultivator Cultivates solanaceous crop as per the package of practices recommended for a particular agronomic climate zone, type of soil, rainfall pattern and climatic condition to achieve the yield as per the genetic potential of given variety and sell the produce as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference	AGR/Q0502
QP NOS Name	Solanaceous Crop Cultivator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 6111
Title Field Crop and Vegetable Growers

6111.1601

Tuber Crop Cultivator

Tuber Crop Cultivator cultivates tuber crop as per the package of practices recommended for a particular agronomic climate zone, type of soil, rainfall pattern

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and climatic condition to achieve the yield as per the genetic potential of given variety and sell the produce as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference	AGR/Q0503
QP NOS Name	Tuber Crop Cultivator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6111
Title	Field Crop and Vegetable Growers

6111.1801

Chillies Cultivator

Chillies Cultivator cultivates chillies as per the package of practices recommended for a particular agronomic climate zone, type of soil, rainfall pattern and climatic condition to achieve the yield as per the genetic potential of given variety and sell the produce as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference	AGR/Q0901
QP NOS Name	Chillies Cultivator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6111
Title	Field Crop and Vegetable Growers

6111.1901

Coriander Cultivator

Coriander Cultivator cultivates coriander as per the package of practices recommended for a particular agronomic climate zone, type of soil, rainfall pattern and climatic condition to achieve the yield

as per the genetic potential of given variety and sell the produce as per the competitive market prices without distress sale.

Qualification Pack Details:

QP NOS Reference	AGR/Q0902
QP NOS Name	Coriander Cultivator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6111
Title	Field Crop and Vegetable Growers

6111.2000

Field Man, Agriculture

Field Man, Agriculture; Mate Agriculture distributes and controls labour of Agricultural or Horticulture farm and supervises ploughing, sowing, harvesting, etc. under directions of superiors. Checks attendance of labour. Allots work to each worker. Collects seeds, fertilisers and equipment from stores and distributes them to workers. Controls workers engaged in ploughing, manuring, sowing, irrigating, gap filling, harvesting, weeding, threshing, winnowing etc. Collects from workers at close of day all implements distributed to them in morning and deposits them in stores. Reports progress of work to superior and arranges payment of wages by superior. Attends to any other job assigned by superior.

ISCO 08 Unit Group Details:

Code	6111
Title	Field Crop and Vegetable Growers

6111.9900

Field Crop and Vegetable Growers, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Field Crop and Vegetable Growers, other include those who plan and carry out the necessary operations to grow and harvest various types of field crops such as wheat and other cereals, rice, beetroot, sugarcane, ground-nuts, tobacco, reeds or other field crops and potatoes, cabbages or other field vegetables, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets not elsewhere classified.

ISCO 08 Unit Group Details:

Code 6111

Title Field Crop and Vegetable Growers

Family 6112

Tree and Shrub Crop Growers

Tree and shrub crop growers plan organize and perform farming operations to grow and harvest trees and shrubs, such as fruit and nut trees, tea and coffee bushes, grape vines, berry-bearing bushes, cocoa trees and rubber trees and to collect sap, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

6112.0100

Pruner, Tea Gardens

Pruner, Tea Gardens prunes branches of tea plants to produce better yield. Observes plant and decides extent of pruning needed. Cuts branches using pruning knife at desired point and disposes them off by spreading at bottom of plant or by removal. May prepare land for planting tea plants. May spray insecticides. May perform low skilled manufacturing tasks in factory during heavy harvest months.

ISCO 08 Unit Group Details:

Code 6112

Title Tree and Shrub Crop Growers

6112.0200

Tapper, Palm Juice

Tapper, Palm Juice makes cuts in trunks of palm-trees and gathers oozed out sap (palm juice). Climbs palm-tree with pot and knife tied with his waist through belt. Cleans space at top of tree-trunk preparatory to tapping. Cuts narrow 'V' shaped opening in tree-trunk at specified spot with knife to permit flow of sap. Fastens pot on tree trunk with rope and ensures that palm-juice drops into pot. Adjusts pot, if necessary, to avoid waste. Empties full pot into bucket next day and re-fixes empty pot at adjacent place on tree trunk for further collection. Repeats process for collection of juice from other trees.

ISCO 08 Unit Group Details:

Code 6112

Title Tree and Shrub Crop Growers

6112.0201

Neera Technician

Neera Technician has to manually climb coconut palms. He has to identify the inflorescence and prepare it for tapping by beating it with right force and rhythm. He performs this twice in a day for two weeks. He has to cut the tip of the inflorescence, wrap it up, apply clay and place a can for Neera to flow into it. He has to perform this activity twice a day. He has to store this Neera under suitable temperature and hygienic environment, in order to prevent any microbial contamination. He should be able to handle freshly harvested Neera, have knowledge about transportation for Neera

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

to processing centres and primary processing of Neers and Neera based products. They also clean the crown of the coconut palms. He should be able to identify the types of pests and disease management practices. He will look into various aspects of coconut crop management and should be able to apprise farmers regarding needed improvement.

Qualification Pack Details:

QP NOS Reference	AGR/Q0505
QP NOS Name	Neera Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Growers

6112.0300

Tapper, Rubber

Tapper, Rubber cuts channel grooves on trunk of rubber trees at prescribed angle on specified area and gathers excluded latex. Fastens spout and cup below lowest end of cut to collect oozed out latex. Adds preservatives or anticoagulants into cup where specified. Repeats process on other trees under his charge and empties cups when full or when oozing stops, into bucket. Scraps coagulated latex from scars on trees before making fresh cutting. Ensures that cups and spouts are clean and tapping cuts are of uniform length and depth, without causing injury to tree-trunk. Repeats process on tapped trees next morning. May sharpen tapping knife and carry latex to reception station for weighment and further processing.

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Growers

6112.0400

Budder

Budder buds field-grown rose plants with hybrid buds during rose-growing season: Crouches over rows of rose plants to reach plant rootstock. Cuts T-shaped incision on rootstock and opens incision, using budding knife. Slices hybrid bud from scion wood and inserts bud into incision. Observes tying of buds to ensure quality of tie. Repeats procedure, rapidly, throughout work period to maintain production.

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Growers

6112.0501

Tea Plantation Worker

Tea Plantation Worker is responsible for carrying out the ground level activities in a tea plantation right from nursery preparation to harvesting and storage.

Qualification Pack Details:

QP NOS Reference	AGR/Q0204
QP NOS Name	Tea Plantation Worker
NSQF Level	2

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

6112.0601

Coffee Plantation Worker

Coffee Plantation Worker is responsible for carrying out the ground level activities in a coffee plantation right from nursery preparation to harvesting and storage.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	AGR/Q0203
QP NOS Name	Coffee Plantation Worker
NSQF Level	2

QP NOS Name	Rubber Nursery Worker-Budder
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

6112.0701

Bamboo Grower

Bamboo Grower is responsible for cultivating bamboo as per the recommended practices for a given agro economic zone and achieve the expected yield. He is also responsible for hygienic harvest and post-harvest of the bamboo and ensuring sale of the same.

Qualification Pack Details:

QP NOS Reference	AGR/Q1101
QP NOS Name	Bamboo Grower
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

6112.0801

Rubber Nursery Worker-Budder

Rubber Nursery Worker-Budder carries out all the labour oriented nursery activities specialized in bud grafting work. He is responsible for the timely completion of bud grafting and all seasonal activities assigned to him facilitating smooth running of the nursery and production of quality planting materials as envisaged by the organization

Qualification Pack Details:

QP NOS Reference	RSC/Q0935
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ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

6112.0802

Rubber Nursery Worker-General

Rubber Nursery Worker carries out all the labour oriented nursery activities. He is responsible for the timely completion of all seasonal activities facilitating smooth running of the nursery and production of quality planting materials as envisaged by the organization.

Qualification Pack Details:

QP NOS Reference	RSC/Q0936
QP NOS Name	Rubber Nursery Worker-General
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

6112.9900

Tree and Shrub Crop Growers, Other

Tree and Shrub Crop Growers, other include those who plan and carry out the necessary operations to grow and harvest trees and shrubs not elsewhere classified.

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

Family 6113

Gardeners, Horticultural and Nursery Growers

Gardeners, horticultural and nursery growers plan organize and perform operations to cultivate and maintain trees, shrubs, flowers and other plants in parks and private gardens, and to produce saplings, bulbs and seeds, or grow vegetables and flowers by intensive cultivation techniques, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

6113.0100 Planter

Planter manages plantation on own account to grow plantation crops such as tea, coffee, rubber, etc. Arranges to procure seed according to type of crop such as tea, coffee, rubber, etc. Determines kinds of crop to be grown. Gets land cleared and prepared for growing crops by digging, ploughing, harrowing etc. Organizes and supervises various farm operations, sowing, manuring, weeding, spraying insecticide, and protection of crop from destruction by wild animals. Arranges harvesting of crop and supervises plucking, tapping and threshing of leaves, etc. Ensures proper maintenance and development of plantation estate. Supervises recruitment and welfare of labour employed. Maintains records relating to cost of production, sale and other accounts. May conduct research and organize demonstration. May arrange preservation of produce and partially process them prior to marketing. Is designated as Planter, Tea; Planter, Coffee; Planter, Cinchona; Planter, Cocoa; Planter, Rubber according to type of crop grown.

ISCO 08 Unit Group Details:

Code 6113
Title Gardeners, Horticultural and Nursery Growers

6113.0200 Nurseryman

Nurseryman; Mali, Nursery manages nursery on own account, or on behalf of employer to grow trees, plants, flowers, shrubs, creepers, seeds, bulbs etc. in open air or green houses for sale to customers. Decides kind and number of plants to be grown and method of planting, cultivating and treatment based on soil, climatic conditions, irrigation facilities etc. Selects and purchases seeds, fertilizers, insecticide. Equipment and machinery and other items. Plans preparation of beds and method of planting, depending on type of plants to be grown. Prepares bed by various processes such as breaking soil, mixing fertilizers, etc. sows seeds, plants, seedlings, cuttings or propagates plants by grafting, budding and other methods and makes water channels. Watches growth of sapling, seedlings, grafts and plants. Hoes and prunes excess growth and off-shoots of plants, dusts and sprays pesticides and takes other measures to protect plants from pets, wild animals, etc. Observes development of plants. Develops methods of grafting and budding./ Collects and preserves seeds for sale. Hires labour if necessary and undertakes planting, weeding, pruning etc. as required. Supervises their work and trains them. Maintains buildings and equipment in good condition. Keeps records of cost and production statement. Sells seedling, seeds, bulbs etc. May specialize in landscape planting.

ISCO 08 Unit Group Details:

Code 6113

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Gardeners, Horticultural and
Nursery Growers

6113.0301 Gardener, General

Gardener, General; Mali General grows flowers, trees, shrubs, seedlings, vegetables, etc. in public or private gardens. Prepares soil and sows seeds, plants, seedlings etc. Waters seed-beds and growing plants. Weeds and hoes garden and prunes hedges and bushes. Sprays and dusts pesticides and evolves other measures to protect plants from diseases and wild animals. Prepares soil and lays lawn. Waters mows and levels lawns. Prepares paths and ensures their proper up-keep. Collects and preserves seeds for sowing. Supervises labourers engaged for assistance. Keeps implements etc. in good working order. May maintain green house for display. May cultivate vegetables and fruit trees. May specialize in ornamental gardening. May work in nursery for improving variety of plants from seeds, cuttings, grafting or budding and be designated as MALI, NURSERY. May sell plants, buy seeds, fertilizers, insecticides, etc. May pay wages to labourers employed.

Qualification Pack Details:

QP NOS Reference	AGR/Q0202
QP NOS Name	Gardener
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6113
Title	Gardeners, Horticultural and Nursery Growers

6113.0400 Groundsman

Grounds man; Grounds Keeper prepares and keeps up recreation and sports grounds in proper condition for various games. Grades and selects site. Supervises breaking of soil, removal of weeds and foreign matters and retains required type of grass if necessary. Plans drainage, checks final preparation of soil bed, mixes fertilizers with chemicals like sulphate of iron to improve growth and colour of turf and sows required type of grass seeds. Lays turf for preparing different types of grounds and sports fields such as hockey, tennis, cricket, football, golf, etc. Gives necessary treatment to fields according to type of ground and pitch required such as turf wicket, matting wicket, golf course etc. Dresses turf with nitro-chalk, ammonium sulphate and other chemicals at regular intervals to prevent invasion of earth worms and diseases and adopts measures against ruinous actions of rabbits, field mice etc. Top dresses turf by moving grass cutting and rolling. Investigates causes of bad lawns and takes appropriate steps to renovate neglected lawns, fields and grounds. Measures and marks playing grounds, tracks etc., with chalk line, sets up goal posts and performs related tasks. Supervises work of men engaged in upkeep of fields May prepare annual calendar to facilitate progress. May trim hedges and maintain flowerbeds and pathways.

ISCO 08 Unit Group Details:

Code	6113
Title	Gardeners, Horticultural and Nursery Growers

6113.0501 Green House Fitter

Green House Fitter is responsible for the installation of greenhouse structure as per the structural layout and bill material

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

prepared by the supplier which will meet up the exact requirement for the crops to be grown under.

Qualification Pack Details:

QP NOS Reference	AGR/Q 0302
QP NOS Name	Green House Fitter
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6113
Title	Gardeners, Horticultural and Nursery Growers

6113.0601

Floriculturist- (Open Cultivation)

Floriculturist- (Open Cultivation) performs the duties of a flower crop cultivator in the open field

Qualification Pack Details:

QP NOS Reference	AGR/Q 0205
QP NOS Name	Floriculturist- (Open Cultivation)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6113
Title	Gardeners, Horticultural and Nursery Growers

6113.0602

Floriculturist- (Protected Cultivation)

Floriculturist- (Protected Cultivation) performs the duties of a flower crop cultivator in the green houses.

Qualification Pack Details:

QP NOS Reference	AGR/Q 0206
QP NOS Name	Floriculturist- (Protected Cultivation)

NSQF Level 4

ISCO 08 Unit Group Details:

Code	6113
Title	Gardeners, Horticultural and Nursery Growers

6113.9900

Nursery Workers and Gardeners, Other

Nursery Workers and Gardeners, other include all other nursery workers and gardeners engaged in growing flowers, seeds, bulbs, vegetables etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code	6113
Title	Gardeners, Horticultural and Nursery Growers

Family 6114 Mixed Crop Growers

Mixed crop growers plan organize and perform farming operations to grow and harvest specific combinations of field crops, field vegetables, tree and shrub crops, and garden, horticultural and nursery products, for sale or delivery to wholesale buyers, marketing organizations or at markets.

6114.9900

Mixed Crop Growers, Other

Mixed Crop Growers, other include those who plan and carry out the necessary operations to grow vegetables and harvest specific combinations of field crops, field vegetables, trees, shrub crops and garden, horticultural and nursery products not elsewhere classified.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 6114
Title Mixed Crop Growers

Family 6115

Medicinal and Aromatic Plant Cultivators

Medicinal and aromatic plant growers plan, organize and perform operations to cultivate plants that are used in traditional medical practices such as Unani, Ayurveda etc. and for cosmetic use.

Family 6116

Agriculture Information Management

The agriculture information workers enhance the farmers' knowledge about crop techniques and help them to increase production by sharing the latest technical knowhow with the farmers.

6116.0101 **Agriculture Extension Executive**

Agriculture Extension Executive works with R&D team to market and transfer the technology, products, knowledge and information to the farmers, acting as a bridge between the company and farmers increasing their productivity and profitability. The person is responsible for working with Research and Development team in agriculture industries (including seed, fertilizer, pesticides, and micro irrigation industries) to satisfy the farmer needs. They understand and market the technology to be transferred to farmers by way of demonstrations and training. They also co-ordinate and motivate the

farmers to adapt to modern methods for good returns.

Qualification Pack Details:

QP NOS Reference AGR/Q7602
QP NOS Name Agriculture
Extension Executive
NSQF Level 6

ISCO 08 Unit Group Details:

Code 6114
Title Mixed Crop Growers

6116.0102

Agriculture Extension Service Provider

Agriculture Extension Service Provider is responsible for speedy transfer of information and technology to farmers. He reduces the time lag between generation of technology and its transfer to the farmers for increasing production, productivity and income from agriculture and allied sectors on a sustained basis. An agriculture extension service provider gives talks, guidance and actual demonstrations on latest technologies related to agriculture. He also works with other experts in agriculture to learn more or even develop new methods that could advance production.

Qualification Pack Details:

QP NOS Reference AGR/Q7601
QP NOS Name Agriculture
Extension Service
Provider
NSQF Level 4

ISCO 08 Unit Group Details:

Code 6114
Title Mixed Crop Growers

6116.0112

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Community Service Provider

Community Service Provider (CSP)/VLE is an individual selected from within a village/area to act as a touch point between the business and the customer to run the CSC. A VLE educates villagers on 26 Types OF G2C services and scores of other services related to daily lives of rural population. The VLE then sells products and services offered by the corporate and the Government through CSC.

Qualification Pack Details:

QP NOS Reference	AGR/Q7603
QP NOS Name	Community Service Provider
NSQF Level	3

ISCO 08 Unit Group Details:

Code	6114
Title	Mixed Crop Growers

Group 612 Animal Producers

Animal producers plan, organize and perform farming operations to breed and raise domesticated animals, poultry, insects and non-domesticated animals for the production of meat, dairy products, honey, skins, textiles and other products or for use as working, sporting or recreational animals, for sale or delivery to wholesale buyers, marketing organizations or at markets.

Occupations in this Group are classified into the following Families:

6121 Livestock and Dairy Producers
6122 Poultry Producers
6123 Apiarists and Sericulturists
6129 Animal Producers, Not Elsewhere Classified

Family 6121 Livestock and Dairy Producers

Livestock and dairy producers plan, organize and perform farming operations to breed and raise domesticated animals (excluding poultry), such as cattle, sheep, pigs, goats, horses and camels, for the production of meat, milk and other dairy products, skins, and wool or for use as working, sporting or recreational animals for sale or delivery to wholesale buyers, marketing organizations or at markets.

6121.0100 Farmer, Livestock

Farmer, Livestock manages farm on own account for raising and breeding different kinds of livestock. Selects and purchases animals, arranges sheds, stables etc. to shelter animals from weather and gets enclosures put up for their safety. Determines amount of basic feed required to feed animals and stock fodder and other feeding material through purchases. Arranges grazing of livestock on available pastures and ensures by constant watch that animals do not go astray or get lost. Restrains them from drinking polluted water. Examines and treats animals for minor injuries and infection. Arranges proper medical aid in serious cases. Trains to cultivate desirable habits in animals. Selects and pairs pedigree animals for breeding. Gets animals bred by artificial insemination if necessary. Tends animals during birth and protects and guards young animals. Performs tasks connected with milking. Markets milk, and animals for meat, breeding etc. Gets animals inoculated and vaccinated in time and adopts preventive measures in case of outbreak of epidemic. Keeps records of

feed consumed, milk and other items produced and stock sold or purchased. Attends to all correspondence, accounts and administration of farm. Ensures proper cleaning of sheds and stable, flaying of skins and hides of fallen animals, disposal of carcasses etc. as necessary. May raise particular breeds of animal. May raise and exhibit show animals. May grow and cultivate feed for animals.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.0201

Farmer, Dairy/Dairy Farmer/Entrepreneur

Farmer, Dairy owns and breeds milk cattle for production of milk, butter, ghee, etc. and arranges for their marketing. Selects and buys cattle. Makes proper arrangements for housing and feeding them and gets them inoculated and vaccinated in time to prevent diseases. Buys and stores feeding supplies. Determines amount of basic feed required and prepared it by mixing oil cakes, roughages and minerals (salt and lime) in desired quantity. Gives regulated diet to animals. Arranges their grazing on available pastures. Ensures guarding of animals from wandering and being lost, eating poisonous and harmful plants, drinking polluted water and mating with stray animals. Selects and pairs animals for breeding. Tends animals during birth and protects and guards the young animals. Arranges proper and regular cleaning of animals, sheds and surroundings. Treats animals for minor diseases and injuries and arranges proper medical aid in serious cases. Arranges cleaning and massaging of udder, milking of animals in hygienic manner by hand or

machine, preserving milk, transporting milk to various dairies and customer or selecting and selling animals etc. as required. Records feed consumed and milk and other products sold. Adopts appropriate measures to quarantine animals in case of epidemic. May get milk pasteurised before sale. May grow and cultivate feed for animals. May raise and exhibit show animals. May brand animals with identifying marks. May separate cream from milk and prepare other milk products like butter, ghee and cheese.

Qualification Pack Details:

QP NOS Reference AGR/Q 0502

QP NOS Name Dairy Farmer/Entrepreneur

NSQF Level 4

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.0300

Livestock Worker, General

Livestock Worker, General performs any combination of following tasks to bed, feed, water, load and unload, weigh, mark and segregate livestock awaiting slaughter in ranch, sales or slaughter yard or in transit. Drives livestock into pens, killing or loading trucks or railway wagons. Weighs animals separately or in truck lots and segregates them according to weight, age, colour, and physical condition. Tags, paints or tattoos identifying marks on livestock to signify ownership or grade of animal. Records weights and grades for each animal processed. Scatters bedding material such as saw dust or straw in pens and maintains supply of water in watering tanks. Feeds livestock with hay, grain, or other prepared feed as required. Cleans pens, using hose, fork, shovel or rake. May apply liniment or other remedies to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

livestock when illness or injury is detected. May be designated according to task performed.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.0400

Herdsman

Herdsman; Grazier takes cattle and other domestic animals out for grazing on own or employer's behalf. Collects animals every morning from different houses. Takes them out to available pastures for grazing in field. Keeps watch over them from being lost or strayed. Guards them from eating poisonous and harmful plants or drinking polluted water and indiscriminate mating with stray animals. Identifies animals in heat and arranges for pairing. Collects and counts them in evening and drives them back to their respective places. Ties them at fixed places or hands them over to owners. May render first aid and assist in treating minor injuries of animals. May be designated as SHEPHERD if engaged in grazing and herding sheep and goats.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.0500

Livestock Workers/Other Livestock Workers

Livestock Worker cleans pens, feeding, watering and taking care of livestock. May be designated as FURB EARING ANIMAL WORKER if engaged in looking after furbearing animals.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.0601

Dairy Farm Worker, General/Dairy Worker

Dairy Farm Worker, General attends to dairy farm livestock of resident and non-resident owner. Attends to herd of feeding cows and buffaloes and aiding in calving, dehorning and vaccination. Keeps, barns, stalls, containers and dairy equipment in clean and sanitary condition. Milks cows and buffaloes as required by hand or by machine. May mix and blend feed for farm livestock and keep dairy records such as feed consumed, individual milk production, gestation periods of cows and buffaloes etc. May perform other tasks as directed.

Qualification Pack Details:

QP NOS Reference AGR/Q 0501

QP NOS Name Dairy Worker

NSQF Level 2

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.0700

Milker

Milker; Diary Attendant; Gowala milks, and cleans milk cattle, collects various feeds mixes them and feeds animals before milking. Regulates timing of milking. Cleans and disinfects buckets and other containers used in milking in sun or vacuum. Ties hind legs of animals and washes hind quarter with chlorinated water. Cleans udder with plain chlorinated water and messages them by hand.

Disinfects hand by washing with chlorinated water. Adjusts buckets between own legs below udder. Presses udders alternatively with fingers to extract milk from them into bucket. Stimulates flow of milk from udder by repeated supply of feed. Repeats pressing of udders to extract maximum milk. Carries bucket containing milk to specified place of storing. Treats udder and other minor injuries by applying antiseptic powder, ointment, etc. May sell milk. May prepare ghee, butter and cream.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.0800

Milker, Machine

Milker; Machine; Milking Machine Operator tends machine to milk dairy cows and buffaloes. Guides cows and buffaloes into stanchion and cleans teats and their udder with disinfectant. Squeezes teats to collect sample of milk in strainer cup and examines sample for curd and blood. Starts milking machine and attaches cups of machine to teats of cows and buffaloes. Removes cups when required amount of milk is obtained. Dips cups of machine into disinfectant solution after each animal is milked. Empties milk receptacles and cleans and sterilizes equipment.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.1000

Stableman

Stableman, Syce grooms, feeds and looks after horses, camels, mules etc., in stables. Grooms animals by brushing, currying, washing them and trimming their manes and tails using hair and metal brushes, clippers and scissors. Waters feeds and exercises animals. Sweeps out stalls and spreads fresh straw. May treat sick or injured animal according to his knowledge or may report their condition to Veterinarian and follow his medical advice. May harness or saddle animals. May repair and recondition harness. May train animals for riding or for pulling carts, tongas, etc. May take animals out for grazing.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.1100

Elephant Keeper

Elephant Keeper tends and looks after feeding, washing and exercising of tame elephants and supervises general cleanliness of their stables. Tethers elephants to ground anchor with chains, fastened round front and hind legs. Leads elephants to watering places and scrubs their hide to remove dirt, ticks and parasites. Inspects them for sickness or injuries and reports uneasiness or ailments to Mahout or Veterinarian. Treats elephants as directed by them. Gathers fodder and feeds animals with masalas (Special food mixture). Files foot nails and sweeps refuse from stables. Straps howdah (riding arrangement) on its back and prepares elephant for ride, when desired. May polish and maintain 'howdahs' and paint forehead and trunk of elephant with attractive design on ceremonial occasions. May act as guide and answer queries of visitors. May cut off

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

excessive growth of tusk by sawing under guidance of Mahout. May assist in training wild elephants and tending young calves. May ride elephants in absence of Mahout.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.1200

Shearer, Sheep

Shearer, Sheep collects sheep at shearing yard. Shears wool closely from sheep, clipping carefully to avoid cutting or nicking its skin. Gathers black and white wool in separate piles. Keeps clippers sharpened. May deliver wool to storing yard.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.1300

Shearer, Animal, Other/Shearer, Other Animals

Shearer Animals cuts with scissors or clippers hair or bristles of its skin. Gathers black and white wool in horses, camels, pigs and other animals, not elsewhere classified. Ties and immobilises animal before clipping. Selects suitable clipping instrument and closely clips hair or bristles taking care not to cut or nick its skin. Maintains and sharpens tools. May sort bristles according to size and quality.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.1400

Grass Cutter

Grass Cutter cuts grass from fields and gardens with sickle or other grass cutting implements, for feeding cattle or other animals. Mixes different varieties of grass to make feed palatable to animals. Carries grass to stable or to market for sale. Keeps tools sharp. May feed grass to animals. May cut hay and other fodder into small pieces with hand or mechanically operated chopper.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

6121.9900

Dairy and Livestock Producers, Other

Dairy and Livestock Producers, other include those who plan and carry out the necessary operations to breed, raise and tend livestock to be used as working, sporting, or pet animals, as well as for meat, milk, hair, hides and other products for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets not elsewhere classified.

ISCO 08 Unit Group Details:

Code 6121

Title Livestock and Dairy Producers

Family 6122

Poultry Producers

Poultry producers plan, organize and perform farming operations to breed and raise chickens, turkeys, geese, ducks and other poultry to produce meat, eggs and breeding stock for sale or delivery to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

wholesale buyers, marketing organizations or at markets.

particular type of poultry stock. May grow and cultivate feed.

6122.0101

Farmer, Poultry/Broiler Farm Supervisor

Farmer, Poultry owns and manages poultry farms to raise fowls, chicken, ducks, etc. for eggs and table use, and sells produce. Determines varieties of poultry to be raised. Selects and buys fertile eggs, incubators, feed, chicken, ducks, etc. Constructs brooder houses for chickens and pan for adult birds. Provides heating arrangements, as required by different types of stock. Gets poultry area cleaned. Treats minor disease of birds and arranges medical aid in serious cases. Gets them vaccinated at proper ages. Isolates and treats or properly disposes of failing birds and takes measures against spread of epidemic. Determines amount of basic feed required, prepares it or gets it done and feeds birds at prescribed hours. Adopts measures to avoid feed waste, water contamination, protection from wild animals and thieving. Provides them fresh water to drink, prevents them from wandering and being lost and from eating poisonous stuff or drinking polluted water. Rears young stock carefully. Hatches eggs through natural process of providing heat for specified period by stock themselves and through incubators. Keeps record of breeding. Estimates cost on feed and other items of expenditure on poultry farm and fixes selling prices for eggs of different grades and stock of different grades and stock of different ages and pedigree. Packs and prepares stock of eggs for transportation. May operate both kerosene and electrical incubators. May raise and exhibit select stock. May specialize in breeding any

Qualification Pack Details:

QP NOS Reference AGR/Q4301
QP NOS Name Broiler Farm
Supervisor
NSQF Level 5

ISCO 08 Unit Group Details:

Code 6122
Title Poultry Producers

6122.0200

Farmer, Poultry Breeding

Farmer, Poultry Breeding raises purebred chickens or other fowls. Purchases stock fowl according to egg production, size, prizes won, or other reasons. Selects and pairs birds for breeding or breeds them by artificial insemination. Arranges with buyers for sale of pedigreed eggs and pedigreed chicks.

ISCO 08 Unit Group Details:

Code 6122
Title Poultry Producers

6122.0301

Poultry Farm Worker, General/Broiler Farm Worker

Poultry Farm Worker, General attends to poultry stock to raise hens, chickens, turkeys and other poultry for egg production and sale as meat. Feeds poultry, cleans cages, nests and brooder houses. Sprays poultry houses with disinfectants and observes poultry for indications of diseases such as fowl pox, bronchitis and coccidiosis. Places vaccines in drinking water, injects vaccines into poultry or dusts air with vaccine powder to vaccinate poultry against diseases.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Maintains feed and production records. May incubate fertile eggs. May kill and dress poultry.

QP NOS Reference	AGR/Q4401
QP NOS Name	Hatchery In Charge
NSQF Level	5

Qualification Pack Details:

QP NOS Reference	AGR/Q4302
QP NOS Name	Broiler Farm Worker
NSQF Level	3

ISCO 08 Unit Group Details:

Code	6122
Title	Poultry Producers

6122.0401

Hatchery Operator/Hatchery In Charge

Hatchery Operator; Hatchery Man operates incubators to hatch eggs. Sets and adjusts mechanism of incubators to maintain required degree of temperature at different stages of incubation. Marks ownership and dates of setting eggs. Sets them on tray and places it into incubator. Inserts and places nursery tray after filling hot water into water channels provided in it (nursery tray) for creating humidity. Adopts disinfection technique to avoid contamination of hatchery. Turns eggs everyday in different positions for specified period. Removes newly born chicks to Foster-mother (chamber containing two parts having one burning lamp beneath to provide required extent of heat). Keeps and maintains breeding records. May operate electrical incubator having automatic devices of controlling temperature and turning eggs. May raise select poultry and sell quality eggs. May demonstrate operations of various types of hatchery plants to develop hatching of eggs. May suggest effective measures to employer for better results.

Qualification Pack Details:

ISCO 08 Unit Group Details:

Code	6122
Title	Poultry Producers

6122.9900

Poultry Farm Workers, Other

Poultry Producers, Other include all other workers engaged in hatching eggs and poultry farming operations, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	6122
Title	Poultry Producers

Family 6123

Apiarists and Sericulturists

Apiarists and sericulturists plan, organize and perform operations to breed, raise and tend insects such as honey bees, silkworms, and other species to produce honey, beeswax, silk and other products for sale or delivery to wholesale buyers, marketing organizations or at markets.

6123.0101

Bee-keeper

Bee-Keeper rears honey bees for production of honey, bee-wax, bee-venom, royal jelly, pollination of crops etc. Selects suitable place for rearing bee-colonies. Purchases complete beehive box provided with frames for forming honeycombs. Purchases and affixes foundation wax in half portion of each

frame and places them in beehive boxes. Catches and induces bees into box and transfer bees from oversubscribed beehives. Creates beehive colony consisting of queen-bee, worker-bees and drones. Inspects hives to locate formation of surplus queen-shells. Catches or destroy surplus queen-shells. Remains vigilant to catch swarming queen and bees with help of swarming net and keeps them in hives to start new colonies. Cleans hives and remove dirt. Detects and removes wax moth before it spreads into different combs. Feeds bees with sugar solution when necessary. Keeps hives on stools with their legs dipped in water bowls to prevent ants from attacking hive. Covers hives with wire nets for protection against birds. Wears hand gloves and bee-veil while at work to protect self against bee-stings. Watches flow of honey into upper chamber and frequently checks process of sealing of frames. Removes honey filled frames from upper chamber of beehive box and replaces fresh unfilled ones periodically depending on flow of honey. Brushes bees surrounding comb and removes seal of comb using knife. Places cut comb into honey extractor. Presses extractor on honey filled comb to extract honey into its chambers. May apply crude method of extracting honey from beehives located on roof or tree by keeping off bees with help of fire smoke, gaining access to hive and opening comb with knife for extracting honey.

Qualification Pack Details:

QP NOS Reference	AGR/Q4801
QP NOS Name	Bee-keeper
NSQF Level	3

ISCO 08 Unit Group Details:

Code	6123
Title	Apiarists and Sericulturists

6123.0201**Rearer, Silkworm/Sericulturist**

Rearer, Silk Worm rears silk worms to raise cocoons for production of silk. Selects and purchases eggs of silk worms for hatching. Arranges equitable conditions of temperature and humidity in rearing room. Spread eggs on cards in trays and incubates them in temperature controlled room. Transfers worms from egg cards on bed of tray by gently striking them with finely cut mulberry or castor leaves. Cuts adequate supplies of selected thin, medium and coarse mulberry or castor leaves, as necessary into small pieces with knife and sprinkles them evenly over worms for feeding. Repeats process of feeding for about one month. Changes feed from thin to medium and medium to coarse leaves as worms grow. Removes un-consumed leaves from tray. Observes development of worms and periodically arranges their proper spacing in tray. Watches process of shedding or casting skin of which takes place four times in one month. Detects diseased worms and takes measures to remove and destroy them quickly. Watches development and maturity of larva, shaping into spinning cocoon round its body. Collects cocoons formed out of cross breed larva for production of silk and allows larva of pure race to develop into moth for multiplying breed Grades. May sell cocoons. May cultivate mulberry or castor plants. May keep complete record of laying and hatching of eggs. May conduct research and demonstrate experiments. May develop high breed worms. May rear tussor and muga silk worms outdoor.

Qualification Pack Details:

QP NOS Reference	AGR/Q4701
QP NOS Name	Sericulturist

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 4

ISCO 08 Unit Group Details:

Code 6123
Title Apiarists and Sericulturists

6123.9900

Apiarists and Sericulturists, Other

Apiarists and sericulturists, other include all other who plan and carry out the necessary operations to breed, raise and tend insects, for sale or delivery of honey, beeswax, silk cocoons, on a regular basis to wholesale buyers, marketing organizations or at markets not elsewhere classified.

Farmer, Fur-bearing Animal manages farm to breed and raise fur-bearing animals for their pelts. Buys or captures breeding stock. Breeds and raises animals in surroundings simulating their habitat. Feeds and waters animals and cleans their pens and yards. Kills animals in their prime and removes their hides. Packs hides in crates and transports them for processing, treating and preservation. Arranges with buyers for sale of hides. May treat and preserve hides at farm. May breed stock animals and be designated according to type of animal breed or raised.

ISCO 08 Unit Group Details:

Code 6123
Title Apiarists and Sericulturists

Family 6129

Animal Producers, Not Elsewhere Classified

This unit group covers market-oriented animal producers not classified elsewhere in the group 612, Animal producers. For instance, the group includes those engaged in breeding, raising and tending non-domesticated mammals, game and other birds (except poultry), snails, snakes and other reptiles, as well as various insects and animals used for laboratory tests, for sale or delivery on a regular basis to wholesale buyers, marketing organizations, zoos and circuses, or at markets.

ISCO 08 Unit Group Details:

Code 6129
Title Animal Producers Not Elsewhere Classified

6129.0200

Mixed Animal Producers

Mixed animal producers plan and carry out the necessary operations to breed, raise and tend different types of livestock, such as cattle, sheep, pigs, goats and horses, as well as poultry, and to produce apian and sericultural products, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

ISCO 08 Unit Group Details:

Code 6121
Title Livestock and Dairy Producers

6129.9900

Animal Producers and Related Workers, Other

Market-Oriented Animal Producers and Related Workers, other include those which involve looking after and training of animals in animal reserves, stables, zoos,

6129.0100

Farmer, Fur-Bearing Animals

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

circuses, research organizations, animal homes, and similar institutions not elsewhere classified.

ISCO 08 Unit Group Details:

Code 6129

Title Animal Producers Not Elsewhere Classified

Group 613

Mixed Crop and Animal Workers

Mixed crop and animal producers plan, organize and perform farming operations to grow and harvest field, tree and various other crops, as well as to breed, raise and tend animals and to produce a variety of animal husbandry products, for sale or delivery to wholesale buyers, marketing organizations or at markets.

Occupations in this Group are classified into the following Families:

6130 Mixed Crop and Animal Workers

Family 6130

Mixed Crop and Animal Workers

Mixed crop and animal producers plan, organize and perform farming operations to grow and harvest field, tree and various other crops, as well as to breed, raise and tend animals and to produce a variety of animal husbandry products, for sale or delivery to wholesale buyers, marketing organizations or at markets.

6130.0100

Artificial Breeding Technician

Artificial-Breeding Technician collects and packages bull semen for artificial insemination of cows: Attaches rubber collecting sheath to genital organ of tethered bull, and stimulates animal's organ to excite ejaculation. Examines semen, using microscope, to determine density and motility of gametes, and dilutes semen with prescribed diluents according to formulas. Transfers required amount of semen to container, using titration tube, and labels it with identifying data, such as date taken, source, quality, and concentration, and records similar data on file cards. Packs container of semen in dry ice or liquid nitrogen for freezing and storage or shipment. May inseminate cows

ISCO 08 Unit Group Details:

Code 6130

Title Mixed Crop and Animal Workers

6130.0201

Seed Grower/Quality Seed Grower

Seed Grower propagates and grows horticultural-specialty products and crops, such as seeds, bulbs, rootstocks, sod, ornamental plants, and cut flowers: Plans acreage utilisation and work schedules, according to knowledge of crop culture, climate and market conditions, seed, bulb, or rootstock availability, and employable work force and machinery. Attaches farm implements, such as disk and fertiliser spreader, to tractor and drives tractor in fields to till soil and plant and cultivate crop. Inspects fields periodically to ascertain nutrient deficiencies, detect insect, disease, and pest infestations, and identify foreign-plant growth, and selects, purchases, and schedules materials, such as fertilisers and herbicides, to ensure quality control. Hires field workers; assigns their duties according to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

scheduled activities, such as planting, irrigating, weeding, and harvesting; and oversees their activities. Maintains personnel and production records. Arranges with customers for sale of crop. May oversee activities, such as product cleaning, grading, and packaging. May provide customer services, such as planning and building planters, walls, and patios, and planting and caring for landscape and display arrangements. May bud or graft scion stock on plantings to alter growth characteristics. May develop new variations of species specialty to produce crops with specialized market-appeal. May cultivate out-of-season seedlings and crops, using greenhouse. May cultivate cover crop, such as hay or rye, in rotation with horticultural specialty to rejuvenate soil. May drive and operate self-propelled harvesting machine. May lubricate, adjust, and make minor repairs on farm machinery and equipment.

Qualification Pack Details:

QP NOS Reference	AGR/Q7101
QP NOS Name	Quality Seed Grower
NSQF Level	4

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

6130.0202

Seed Processing Worker

Seed Processing Worker cleans seeds of extraneous and undesirable materials, takes samples for testing, dries seeds to optimum moisture levels, treats, packages and stores them in appropriate manner for distribution

Qualification Pack Details:

QP NOS Reference	AGR/Q7102
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QP NOS Name	Seed Processing Worker
NSQF Level	3

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

6130.9900

Mixed Crop and Animal Workers, Other

Market Oriented Crop and Animal Producers, other include those who plan and carry out the necessary operations to grow and harvest field, tree and various other crops, as well as to breed, raise and tend animals and to produce a variety of animal husbandry products, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets not elsewhere classified.

ISCO 08 Unit Group Details:

Code	6112
Title	Tree and Shrub Crop Grower

Sub Division 62

Market Oriented Skilled Forestry, Fishery and Hunting Workers

Market-oriented skilled forestry, fishery and hunting workers plan, organize and perform operations to cultivate, conserve and exploit natural and plantation forests, breed and raise fish, harvest and catch fish and hunt and trap animals, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Tasks performed by workers in this sub-major groups usually include: renting or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

investing, equipment and machinery and purchasing supplies; planning and undertaking forestry, aquaculture, fishery and hunting operations; maintaining buildings, tanks, machinery, and other equipment; delivering or marketing products; supervising and training other workers

Occupations in this Sub Division are classified into the following Groups:

621	Forestry and Related Workers
622	Fishery Workers, Hunters and Trappers

Group 621 **Forestry and Related Workers**

Forestry and related workers plan, organize and perform operations to cultivate, conserve and exploit natural and plantation forests.

Occupations in this Group are classified into the following Families:

6210	Forestry and Related Workers
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Family 6210 **Forestry and Related Workers**

Forestry and related workers plan, organize and perform operations to cultivate, conserve and exploit natural and plantation forests.

6210.0100 **Forester**

Forester; Forest Range Assistant develops nurseries, raises plantations and supervises duties of Forest Guard and

Forest Fire Watcher and assists Forest Ranger in development of forest and exploitation of its produce. Raises nurseries of various plants required for afforestation. Raises plantations from replanted seedlings. Arranges for weeding, marking and felling of trees within his block and issues transit and other passes. Supervises fire-fighting operations and protects forest produce from theft and poaching. Maintains records of timber felled for sale. Enquires and reports occurrence of theft, fire, illegal cultivation, etc. to higher authorities. Supervises work of mazdoors engaged in forest work, maintains their muster roll and arranges payment of their wages. May estimate quality and volume of wood available in his section. May collect grazing fees and compensation for offences.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.0200 **Forest Guard**

Forest Guard; Forest Beat Guard patrols allotted beat in forest area for preservation of forest and games. Supervises preparation of nursery beds, sowing of seeds, and nursing of growing plants. Patrols forests to detect fires, eliminate fire hazards and theft of forest produce. Cuts climbers with bill-hook to prevent damage to plants. Apprehends offenders of forest laws and reports to superiors. Supervises work of mazdoors engaged in forest work and maintenance of forest roads, paths and fire lines in his beat. May estimate volume of timber and grade trees according to quality. Is designated as DEPOT GUARD if engaged at sale depot.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.0300

Forest Fire Watcher

Forest Fire Watcher; Reserve Watcher patrols specified forest area to detect, prevent and control forest fires. Clears fire lines in forest to localise fire within limited areas and keeps watch for outbreak of fires. Summons local people and fights forest fire by cleaning areas, digging trenches, spraying water, sand, etc. Reports, occurrence of forest fire to Forest Guard or Forester as required. Clears trees of climbers with bill-hook and keeps paths swept of leaves and twigs. May extinguish fire by chemicals if available.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.0400

Foresters and Related Workers

Foresters and Related Workers perform various miscellaneous tasks in preservation of forests extension of forest and include occupations such as those relating to collecting, preparing and storing of seeds; raising seedlings; transplanting seedlings in afforestation area; protecting trees from insects, diseases and animals; marking felled trees etc.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.0500

Gatherer Lac

Gatherer, Lac; Lac Cultivator infects host-trees with lac insects and collects matured lac from them by scrapping or clipping off lac-bearing sheets. Ties brood-lac to fresh host-trees with young shoots for transferring lac infection and allows larvae to grow on trees for specified period to attain maturity. Scrapes and collects matured lac from infected trees using knife, allowing part of lac to remain fixed, with trees for further growth of larvae. Stores collected lac in godown for further processing.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.0600

Gatherer, Medicinal Herbs

Gatherer, Medicinal Herbs collects leaves, fruits, roots etc. of herbs or other plants for preparation of different kinds of medicines. Visits gardens, forests and jungles and collects samples of dried fruits, leaves, seeds and roots of medicinal plants. Cleans foreign matter from herbs by washing them with water and gets them examined by Chemists, Hakim or Vaid. Collects green herbs and dries them in sun for storage and supply.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.0700

Gatherer, Firewood

Gatherer, Firewood cuts and collects wood from forests or fields for sale in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

market as fuel. Visits forest or fields and picks pieces of dried wood from ground and piles them in heaps. Pulls down dry and weak branches of trees using small axe, sickle or large knife. Cuts decayed branches and trunks of trees using axe and hand-saw. Digs out roots of fallen trees using shovel and axe; Ties collected wood into small faggots and carries them on head or transports them in cart to market for sale. May assist in cutting large trunks of dry trees using saw and axe.

ISCO 08 Unit Group Details:

Code 6210
Title Forestry and Related Workers

6210.0800 **Cane Cutter**

Cane Cutter cuts mature sugar cane in fields using broad bladed knife or sickle. Examines sugar cane plant by sight and by feel of hand to ascertain its maturity and required pliability. Cuts matured plant at base using sickle or knife and pulls off side leaves of cane stalk with hook and cuts its unusable top portion with knife. Places cut stalks in piles for loading into carts. May load cane in carts or carry stalk on head for weighment.

ISCO 08 Unit Group Details:

Code 6210
Title Forestry and Related Workers

6210.0900 **Thatch Cutter**

Thatch Cutter cuts straw or rushes in grass land or forest for roofing of huts and other uses. Cuts matured green straw using sickle or scythe. Ties cut green straw into sheaves of convenient thickness and allows them to dry in sun and shuffles

stacks once or twice to allow green sheaves at bottom to get dried. Removes by hand or through cart dried straw from field to safe place for storage. May cut and collect fodder for cattle.

ISCO 08 Unit Group Details:

Code 6210
Title Forestry and Related Workers

6210.1000 **Log Feller**

Log Feller; Tree Feller cuts down tree using axe, saw, etc. for timber and fire wood. Inspects tree to determine mode of felling such as cutting through stem, digging out root from earth, etc. Climbs tree and lops off branches, using axe, bill hook, and hand saw. Cuts stem from bottom using axe and saw. Determines direction to which tree should fall, considering vacant ground, slope of land inclination of stem etc. Fastens one end of rope on top of stem and gets free end pulled by others while cutting at root. May dig up root from ground using spade. May fell small trees by uprooting them. May fill and level space from where trees are removed. May plant new tree.

ISCO 08 Unit Group Details:

Code 6210
Title Forestry and Related Workers

6210.1100 **Wood Cutter**

Wood Cutter cuts felled trees into logs of required size. Trims branches of fallen tree using axe and handsaw. Cuts stem into beams, billets or logs of required size. Separates usable timber from fuel wood with axe and saw. May split remaining portion of log to small sizes for fuel.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.1200

Marker, Log

Marker, Log measures and determines volume of timber in each log. Measures girth, diameter and length of log using tape to determine volume of log. Marks length and diameter on log ends with ink, coloured chalk or paint.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.1300

Sandal Wood Extractor

Sandal Wood Extractor extracts sandal wood from sandal wood trees by felling trees and removing sap wood from trunks, branches and roots using axe, adze and saw. Cuts off thin branches and twigs from tree trunk using axe or saw. Removes bark and sap wood of tree trunks, branches and roots carefully by chipping with adze or bill hook ensuring not to cut through heart wood. Cuts trunks, roots, branches into billets of suitable length using hand saw. Removes carefully layer of sap wood from billets using axe or hand adze ensuring to protect heart wood from being damaged or cut through. Delivers finished sandal heart wood billets to superior. Collects sandal wood dust from floor and accounts for it separately.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.1400

Estimator, Timber

Estimator, Timber; Enumerator, Timber estimates volume of standing timber in enumerated trees by surveying forest, examining and measuring sample trees, etc. Studies list of enumerated trees supplied by forest department. Visits enumeration plots in forest and measures length and girth of selected sample trees to estimate cubic content of available timber. Inspects enumerated trees to grade them according to quality of timber by making sample cuts. May identify type of timber visually.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.1500

Sorter, Timber

Sorter, Timber sorts out and grades timber according to quality of wood. Examines cut timber and separates decayed or damaged wood for fuel. Grades selected timber according to quality, maturity and size. May estimate volume of wood. May auction sale fuel wood to retail or wholesale dealers.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.1600

Log Driver

Log Driver drives logs downstream from logging sites to mills. Rolls logs from landing into river, using cant hook or stout lever fitted with strong spike. Guides logs

around obstruction and into current of stream from bank, boat, or floating logs using pike pole. Pulls or rolls key logs from jams to release logs from obstruction using stout lever with spike or pike pole. May collect logs in booms or rafts to retain logs at mill.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.1700**Charcoal Burner, Wood**

Charcoal Burner, Wood operates kiln at wood felling site to convert wood into required quality and type of charcoal by slow burning process. Stacks wood in convenient sizes in kiln. Places kindling in kiln to start fire. Seals top of kiln when desired heat is reached with mud plaster. Observes colour of smoke as it emits through draught holes in kiln bottom to determine proper burning of charcoal. Regulates formation of charcoal by opening and closing draught holes as required. Smothers fire when charcoal has been formed by sealing cracks and draught holes with mud plaster. Removes charcoal with shovel when kiln cools down.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.1800**Digester Operator, Wood**

Digester Operator, Wood operates digester to extract crude turpentine, quinine, catechu (Kachu), etc. from wood-chips or barks of specific species of trees by boiling them in water. Gets digester

filled with wood chips or bark, chemicals and water. Releases steam into digester. Adjusts temperature and pressure at specified level by manipulating steam valves. Cooks wood-chips or barks for required time. Tests samples by titration or standard colour test to determine completion of cooking process. Drains liquid from digester into drums for further processing. May do minor repairs to equipment. May operate simple devised wet plant. May operate wood chipper.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.1900**Distiller, Turpentine and Eucalyptus**

Distiller, Turpentine and Eucalyptus; Distillery Operator operates still to refine crude turpentine or eucalyptus oil obtained from wood or leaves. Operates manipulating valves and charges still with crude turpentine or eucalyptus oil at regulated rate of flow. Connects outlet tubes of still to receiving jars or containers. Closes openings and inlets of still. Sees that cold water is circulating inside condensing unit. Manipulates steam injection valves to allow still to be heated up to prescribed degree of temperature. Checks meter reading and maintains heating at required temperature for prescribed period. Allows oil vapour to pass through coolers to get condensed into oil and water. Observes oil and water being collected in different containers. Directs pumping of primary bulk oil to overhead measuring tank for further processing. Watches progress and manipulates valves at proper time during processing to extract oil from coils. May operate still to extract essential and other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

medicinal oils. May fill bottles with distilled oil in prescribed quantities.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.2000

Lac Treater

Lac Treater; Lac Worker treats or processes raw lac by grinding, washing and drying to make pure or seed lac for making lac polish, varnish, sealing, wax, etc. Washes raw lac in water and chemicals to remove impurities, dead insects and dye matter. Dries washed lac (seed lac) in open. Dissolves seed lac in spirit and linseed oil or in any one of them in prescribed proportion. Filters solution through cloth bags or filters and collects filtered liquid called lac varnish or polish in containers. Boils bag waste in water with washing soda. Collects wax floating on water and cools it to become lac wax. Makes powder of seed lac, rosin, chemicals and colour compound in prescribed quantities. Heats mixture to prescribed temperature. Adds turpentine to heated mixture or molten solution. Pours molten composition into special moulds with cooling arrangement. Removes moulded sealing wax from mould after specified period.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

6210.9900

Forestry and Related Workers, Other

Loggers and Forestry Workers, Other perform number of miscellaneous tasks in

forest and include workers not elsewhere classified such as those engaged in sawing, weeding, collecting felled trees, transporting logs, repairing forest road, etc. and are usually known as FOREST LABOURERS.

ISCO 08 Unit Group Details:

Code 6210

Title Forestry and Related Workers

Group 622

Fishery Workers, Hunters and Trappers

Fishery workers, hunters and trappers breed and raise fish, harvest and catch fish and hunt and trap animals, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Occupations in this Group are classified into the following Families:

6221 Aquaculture Workers
6222 Inland and Coastal Waters Fishery Workers
6223 Deep-Sea Fishery Workers
6224 Hunters and Trappers

Family 6221

Aquaculture Workers

Aquaculture workers breed and raise fish and cultivate mussels, oysters and other forms of aquatic life, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

6221.0101

Shrimp Farmer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Shrimp Farmer purchases seeds from hatcheries on deciding the type of species to harvest, constructs a pond and harvest the shrimp by giving it a healthy feed and maintaining quality to sell in the market.

Qualification Pack Details:

QP NOS Reference	AGR/Q4902
QP NOS Name	Shrimp
Farmer	

4

ISCO 08 Unit Group Details:

Code	6221
Title	Aquaculture Workers

6221.0102

Hatchery Production Worker

Hatchery Production Worker produces the post larval in hatcheries after producing seed in reproduction and maturation stage, which is then transferred to the final grow-out stage for shrimp farming, considering labour and capital as major factors

Qualification Pack Details:

QP NOS Reference	AGR/Q4901
QP NOS Name	Hatchery
	Production Worker

5

ISCO 08 Unit Group Details:

Code	6221
Title	Aquaculture Workers

Family 6222

Inland and Coastal Waters Fishery Workers

Inland and coastal waters fishery workers, alone or as members of fishing-vessel crews, catch fish or gather other forms of

aquatic life in inland or coastal waters, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

6222.0100

Fisherman, Inland Water

Fisherman, Inland Waters fishes in inland waters, rivers, tanks, channels, creeks etc. using different types of nets and other fishing gears according to type of fish to be caught. Goes singly or with other fishermen in boats, dinghies or canoes with necessary equipment. Throws or fixes different types of fishing nets and gears such as gill nets, cast nets, drag nets, bag nets, long lines etc. in area to be fished. Drags nets and gears and other equipment of boat. May salt fish for preservation. May operate power driven boats. May repair boats. May catch fish with hook and line using bait or artificial lures.

ISCO 08 Unit Group Details:

Code	6222
Title	Inland and Coastal Water Fishery Workers

6222.0200

Fisherman, Estuaries, Coastal and Back Water

Fisherman, Estuaries, Coastal and Backwater fishes in estuaries, coastal and back waters using different types of nets and gears according to nature of fish to be caught and type of fishing area. Goes in boat, canoe or catamaran with fishing nets and gears. Lays either singly or with other fishermen different types of fishing nets and gears such as drag nets, stake nets, basket traps, dip nets in coastal and back waters. Pulls or drags net or gear to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

surface of water after some time to collect fish caught and puts catch in hold (storage space) of boat. May stand on shore or rock and pull net to shore to collect fish. May operate power driven boats. May repair boats. May use torch and spear or harpoon to catch fish (torch fishing).

ISCO 08 Unit Group Details:

Code 6222

Title Inland and Coastal Water Fishery Workers

6222.9900

Inland and Coastal Water Fishery Workers, Other

Inland and Coastal Water Fishery Workers, other include those who alone or as members of fishing-vessel crews, catch fish or gather other forms of aquatic life in inland or coastal waters, for sale or delivery, on a regular basis to wholesale buyers, marketing organizations or at markets not elsewhere classified.

ISCO 08 Unit Group Details:

Code 6222

Title Inland and Coastal Water Fishery Workers

Family 6223

Deep-Sea Fishery Workers

Deep-sea fishery workers, as skippers or members of fishing vessel crews, catch deep-sea fish, for sale or delivery to wholesale buyers, marketing organizations or at markets.

6223.0101

Fisherman, Deep Sea/Marine Capture Fisherman

Fisherman, Deep Sea catches fish in deep sea or in shore and off-shore waters using different types of fishing gears and nets depending on type of fish to be caught. Sets sail in boat or canoe and goes with other fishermen long distances on sea. Selects area to be fished and lays different types of nets or fishing gears such as gill net drift net, drag net, hook and line with bait or artificial lures, etc. Drags net or hook and line to surface and collects fish caught in it. Puts fish in hold (storage space) of boat. Repairs or mends nets as necessary and maintains fishing gears. May salt and dry them for preservation. May sail in trawlers and operate power driven boats.

Qualification Pack Details:

QP NOS Reference AGR/Q5001

QP NOS Name Marine Capture
Fisherman

NSQF Level 4

ISCO 08 Unit Group Details:

Code 6223

Title Deep Sea Fishery Workers

6223.9900

Deep Sea Fishery Workers, Other

Deep-sea Fishery Workers, other include all those who as members of fishing vessel crews, catch deep-sea fish, for sale or delivery, on a regular basis to wholesale buyers, marketing organizations or at markets not elsewhere classified.

ISCO 08 Unit Group Details:

Code 6223

Title Deep Sea Fishery Workers

Family 6224

Hunters and Trappers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Hunters and trappers catch and kill mammals, birds or reptiles mainly for meat, skin, feathers and other products. They also catch animals and birds for treatment and tagging.

6224.0300

Trapper

Trappers catches birds or wild animals alive by means of traps, snares and nets for treatment and tagging. Selects location, sets bait and camouflages traps. Removes captured animal.. May specialize in catching particular type of animal or birds. May prepare nets, cages and other snares for trapping animals and birds.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.0400

Tracker

Tracker; locates rest places and hide outs of wild animals by finding their pug marks, kills, remain of meals etc. and following clues to track down their hide-outs. Observes foot prints and marks on ground, water hole, grass, foliage, twigs, remains of meals etc. and identifies animals. Selects sites and erects machans (observation post) in trees for observation. May be familiar with use of weapons such as fire arms, spears, knives, etc. May locate wild animals to save them from natural calamities.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.0500

Fish Overseer

Fish Overseer; Fish Cultural Officer; Extension Officer, Fisheries; Sub-Overseer, Fisheries maintains fish collection centres fish farms, etc. and advises people in proper methods of fish culture. Looks after fish collection centres, fish farms, etc. and ensures their proper maintenance. Demonstrates correct methods of fish farming, fish culture, etc. to public to achieve improvements in these fields. May assist Fisheries Inspector in transporting fish seed to different fishery stations.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.0600

Fisheries Inspector

Fisheries Inspector; Fisheries Sub-Inspector demonstrates, supervises and controls work of staff engaged in fish collection, sale, curing and demonstration centres. Demonstrates to public proper methods of fish culture and storing. Supervises sale of fish to public and proper maintenance of fish curing yards. Issues licences to Fishermen for fishing in State Waters(including back waters), use of china net, stake net, lime shell gathering etc. and conducts regular patrol to prevent illicit fishing. Surveys area under jurisdiction for fish breeding, stocking, etc. and to assess potentiality of water area. Executes development schemes such as mechanisation of fishing crafts, financial assistance to Fishermen, training of Fishermen etc. Guides preparation of fish meal. Determines chemical ingredients necessary for fish

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

culture in ponds, tanks, rivers etc. and arranges for supply and transport of fish seed and fingerlings to Fishermen and other areas under proper conditions. Performs other official duties such as collection of revenue, sending reports for publication in gazette, etc. as necessary. May listen to grievances of Fishermen and take necessary measures to remove them.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.0700

Field Man, Fish

Field Man, Fish; Supervisor, Fish arranges transport of fish to different places and supplies, fish seed to purchasers for growth in tanks, wells, rivers, etc. Breeds fish in special tanks or ponds and collects fish seeds and fingerlings. Transports them to areas where required. Sells fish caught in rivers, lakes, sea, etc. to public and maintains necessary records.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.0800

Yard Officer

Yard Officer; Petty Yard Officer; Yard Master; Yard Manager (Fish) guides and ensures curing of fish according to prescribed standards. Checks weight of fish received for curing. Issues prescribed quantity of salt for curing and guides curing as necessary. Ensures that salted fish are dried in sun in curing yards for prescribed period and that they are properly packed. Directs preparation of fish meal, etc. Maintains technical

laboratory and supervises working of its staff. May collect fish statistics in his area.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.0900

Fish Hatcher

Fish Hatcher hatches fish in small tanks and releases hatched fish or fingerlings into public tanks, rivers, etc. for growth. Observes habits of fish in artificial ponds and creates favourable natural conditions as far as possible by planting of weeds and plants in water, keeping water at required temperature etc. for hatching of fish. Transfers fish seeds to different ponds for hatching and growth. Changes water in pond or tank periodically as guided by Pisciculturist. Collects fingerlings or fish seed of different sizes and varieties and puts them in water in metal containers. Transports containers to desired areas and releases fingerlings in public rivers, tanks, ponds, etc. Assists Pisciculturist in experimental farms in transporting and releasing fish in water, feeding them etc. May sell fish caught in public waters, if necessary.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.1000

Fish Curer

Fish Curer salts, cures and preserves fish to prevent putrefaction and for use over long periods. Washes fish with water and cuts off head, fins, tail etc. as necessary. Opens out stomach with knife and removes viscera, gills etc. to prevent

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

putrefaction. Applies salt to cleaned fish either one by one or in lot to preserve them. Stacks salted fish for required period and shuffles them as necessary at specified intervals. Takes fish out of stack and washes them if necessary. Spreads fish in open on mats or bamboo to dry them in sun. May pack fish for transporting them to other areas. May dry fish in sun with or without cleaning and salting particularly in case of seeds and small fingerlings.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.1100

Fish Meal Maker

Fish Meal Maker makes fish meal powder by dehydration, drying and grinding processes for use as food for poultry, etc. Feeds fresh fish into hand press to remove water and oil. Dries pressed fish in sun. Cuts dried fish into small pieces and grinds them to powder by machine. Packs fish meal powder in containers.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.1200

Rock Pilot

Rock Pilot leads pearl and chank divers see and points out area for chank and pearl fishing. Acquires knowledge and condition of sea by intuition, heredity, state of rock formation, etc. Goes out in boats to sea with Divers. Points out area where pearls sea, inland and off-shore fishing.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.1300

Man Duck

Man Duck helps Pearls and Chank Divers in various diving operations, connected with pearl and chank fishing. Rows boats to distant places in sea. Releases rope with heavy weight attached above and held by Diver to dive into sea. Hauls Pope to surface when Diver, reaches sea-bed and releases it. Throws rope to Diver, by hand, if he gets separated from boat to enable him to catch it and reach boat. Receives pearl oysters or chanks gathered by Divers and deposits them in baskets. May fish in deep sea or inland waters using different types of nets and tackles.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.1400

Net Maker

Net Maker makes fishing nets and mends torn or worn out ones using wooden needle and thread. Fabricates nets to required measurements to catch different types of fish. Removes weeds entangled in nets during fishing and spreads them on shore for drying. Examines nets for torn or worn out parts and sews them with wooden needle and nylon, cotton or hemp threads using different knots as required. Ties new floats or weights to nets. May tan and preserve nets. May fish in deep sea or inland waters using different kinds of nets. May assist

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Fishermen in dragging net with catch or boat to shore after fishing.

ISCO 08 Unit Group Details:

Code 6224
Title Hunters and Trappers

6224.9900

Hunters and Trappers, Other

Fishermen, Hunters, Trappers and Related Workers, other perform varieties of routine and low-skilled tasks in cutting and washing fish, boiling fish liver, preparing fish manure, etc. and are designated: Fish Cutter cuts open fish using knives, saws etc. for fish curing. Removes fins, head. Large bones etc. of fish by cutting them away with knife, saw etc. Cuts fish with hand knife to suitable sizes for curing. Fish Cutter and Washer removes fish gut and liver and washes fish for curing. Cuts with knife along abdomen. Removes liver, viscera, gills and gut of fish. Washes fish in water to remove blood and impurities. Fish Liver Boiler boils shark liver in water to collect shark liver oil. Collects liver from sharks. Cuts liver to small bits and washes them in clean water. Puts parts of liver in boiling water. Skims off oil floating in boiling water. Collects oil in containers and sends it for refining. Fish Manure Maker prepares fish manure by dumping fish in compost pits and removing them after decomposition. Digs pits of different sizes, dumps fish into pit and closes it with earth. Allows fish to decompose. Opens it after specified period and removes fish manure from pit.

ISCO 08 Unit Group Details:

Code
Title

Subsistence Farmers, Fishers, Hunters and Gatherers

Subsistence farmers, fishers, hunters and gatherers grow and harvest field or tree and shrub crops, vegetables and fruit, gather wild fruits, medicinal and other plants, tend or hunt animals, catch fish and gather various forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households.

Tasks performed by workers in this sub-major group usually include- preparing the soil; sowing, planting, tending and harvesting field crops; growing vegetables, fruit and other tree and shrub crops; gathering wild fruits, medicinal and other plants; breeding, tending and feeding animals and poultry mainly to obtain meat, eggs, milk, hair, skin or other products; hunting or trapping animals; catching fish and gathering other forms of aquatic life; fetching water and gathering firewood; storing produce for later use and carrying out some processing of produce; building and maintaining houses and other shelters; making tools, clothes and utensils for use by the household; selling or bartering some products at local markets.

Occupations in this Sub Division are classified into the following Groups:

631	Subsistence Crop Farmers
632	Subsistence Livestock Farmers
633	Subsistence Mixed Crop and Livestock Farmers
634	Subsistence Fishers, Hunters, Trappers and Gatherers

Group 631
Subsistence Crop Farmers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Subsistence crop farmers grow and harvest field or tree and shrub crops, vegetables and fruit, in order to provide food, shelter and a minimum of cash income for themselves and their households.

Occupations in this Group are classified into the following Families:

6310 Subsistence Crop Farmers

Family 6310 Subsistence Crop Farmers

Subsistence crop farmers grow and harvest field or tree and shrub crops, vegetables and fruit, in order to provide food, shelter and a minimum of cash income for themselves and their households.

6310.0100 Tree Trimmer and Pruner

Tree Trimmer and Pruner cuts away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree. Prunes or treats trees or shrubs using handsaws, pruning hooks, sheers, and clippers. May use pruning hooks, sheers, and clippers. Climb struck-mounted lifts and power pruners. May fill cavities in trees to promote healing and prevent deterioration. Cuts away dead and excess branches from trees, using handsaws, trees, using climbing hooks and belts, or climbs ladders to gain access to work area. Prunes, cuts down, fertilizes, and sprays trees as directed by tree surgeon. Uses truck-mounted hydraulic lifts and pruners and power pruners. Scrapes decayed matter from cavities in trees and fills holes

with cement to promote healing and to prevent further deterioration. Applies tar or other protective substances to cut surfaces to seal surfaces against insects.

ISCO 08 Unit Group Details:

Code 6310
Title Subsistence Crop Farmers

6310.9900

Subsistence Crop Farmers, Others

Subsistence Agricultural and Fishery Workers, other include those who grow and harvest field or tree and shrub crops, grow vegetables and fruit, gather wild fruits, medicinal and other plants, tend or hunt animals, catch fish and gather other forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households not elsewhere classified.

CRAFT AND RELATED TRADES WORKERS
Craft and related trades workers apply their specific knowledge and skills in the fields of mining and construction, form metal, erect metal structures, set machine tools, or make, fit, maintain and repair machinery, equipment or tools, carry out printing work as well as produce or process foodstuffs, textiles, or wooden, metal and other articles, including handicraft goods. The work is carried out by hand and by hand powered and other tools, which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of all stages of the production process, the materials and tools used, and the nature and purpose of the final product. Most occupations in this division require skills at second skill level.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 6310
Title Subsistence Crop Farmers

6330 Subsistence Mixed Crop and Livestock Farmers

Group 632

Subsistence Livestock Farmers

Subsistence livestock farmers breed, raise and tend livestock in order to provide food, shelter and a minimum of cash income for themselves and their households.

Occupations in this Group are classified into the following Families:

6320 Subsistence Livestock Farmers

Family 6320
Subsistence Livestock Farmers

Subsistence livestock farmers breed, raise and tend livestock in order to provide food, shelter and a minimum of cash income for themselves and their households.

Group 633

Subsistence Mixed Crop and Livestock Farmers

Subsistence mixed crop and livestock farmers grow and harvest field or tree and shrub crops, vegetables and fruit, gather wild fruits, medicinal and other plants, tend or hunt animals, and/or catch fish and gather various forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households.

Occupations in this Group are classified into the following Families:

Family 6330

Subsistence Mixed Crop and Livestock Farmers

Subsistence mixed crop and livestock farmers grow and harvest field or tree and shrub crops, vegetables and fruit, gather wild fruits, medicinal and other plants, tend or hunt animals, and/or catch fish and gather various forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households.

Group 634

Subsistence Fishers, Hunters, Trappers and Gatherers

Subsistence fishers, hunters, trappers and gatherers gather wild fruits, medicinal and other plants, hunt and trap animals, catch fish and gather various forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households.

Occupations in this Group are classified into the following Families:

6340 Subsistence Fishers, Hunters, Trappers and Gatherers

Family 6340

Subsistence Fishers, Hunters, Trappers and Gatherers

Subsistence Fishers, Hunters, Trappers and Gatherers gather wild fruits,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

medicinal and other plants, hunt and trap animals, catch fish and gather various forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households.

Division 7

Craft and Related Trades Workers

Craft and related trades workers apply specific knowledge and skills in the fields to construct and maintain buildings, form metal, erect metal structures, set machine tools, or make, fit, maintain and repair machinery, equipment or tools, carry out printing work produce or process foodstuffs, textiles, or wooden, metal and other articles, including handicraft goods. The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of all stages of the production process, the materials and tools used, and the nature and purpose of the final product.

Tasks performed by craft and related trades workers usually include: constructing, maintaining and repairing buildings and other structures; casting, welding and shaping metal; installing and erecting heavy metal structures, tackle and related equipment; making machinery, tools, equipment, and other metal articles; setting for operators, or setting and operating various machine tools; fitting, maintaining and repairing industrial machinery, including engines and vehicles, as well as electrical and electronic instruments and other equipment; making

precision instruments, jewellery, household and other precious-metal articles, pottery, glass and related products; producing handicrafts; executing printing work; producing and processing foodstuffs and various articles made of wood, textiles, leather and related materials. Supervision of other workers may be included.

Occupations in this Division are classified into the following Sub Divisions:

71	Building and Related Trade Workers (Excluding Electricians)
72	Metal, Machinery and Related Trades Workers
73	Handicraft and Printing Workers
74	Electrical and Electronics Trades Workers
75	Food Processing, Woodworking, Garment and Other Craft and Related Trades Workers

Sub Division 71 Building and Related Trade Workers (Excluding Electricians)

Building and related trades workers construct, maintain and repair buildings, erect and repair foundations, walls and structures of brick, stone and similar materials, shape and finish stone for building and other purposes, and extract and work solid minerals from underground or surface mines or quarries. The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

the materials and tools used, and the nature and purpose of the final product. Tasks performed by workers in this sub-major group include: constructing, maintaining and repairing buildings and other structures using traditional and/or modern building techniques; constructing and repairing foundations, walls and structures of brick, stone and similar materials; breaking quarried stone into slabs or blocks; cutting, shaping and finishing stone for building, ornamental, monumental and other purposes; erecting reinforced concrete frameworks and structures as well as finishing and repairing cement surfaces; cutting, shaping, assembling and maintaining wooden structures and fittings; performing miscellaneous construction and building maintenance tasks. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

711	Building Frames and Related Trades Workers
712	Building Finishers and Related Trades Workers
713	Painters, Builders, Structure Cleaners and Related Trades Workers

Group 711 Building Frames and Related Trades Workers

Building frame and related trades workers construct, maintain and repair buildings, erect and repair foundations, walls and structures of brick, stone and similar materials, shape and finish stone for building and other purposes, and perform

miscellaneous construction and building maintenance tasks

Occupations in this Group are classified into the following Families:

7111	House Builders
7112	Bricklayers and Related Workers
7113	Stonemasons, Stone Cutters, Splitters and Carvers
7114	Concrete Placers, Concrete Finishers and Related Workers
7115	Carpenters and Joiners
7119	Building Frame and Related Traders Workers, Not Elsewhere Classified

Family 7111 House Builders

House builders erect, maintain and repair houses and similar small buildings using either traditional or modern techniques and materials.

7111.0100 Hut Maker

Hut Maker; Cottage Maker; Shanty Maker erects huts, cabin or similar dwellings with wooden planks poles, logs, bamboos, hay, straw, reeds, dry leaves, etc., collects necessary materials required for construction. Measures ground using pegs and ropes and marks outline of hut by digging earth along lines. Digs earth at marked points using spade, shovel etc. and fixes bamboo or wooden posts securely in pits to serve as supports and pillars. Places poles horizontally on top of pillars and ties ends with strings or ropes. Fixes rafters to roof of hut in slanting position to set hay straw or leaf as roofing

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

material. Covers sides of structure with straw, hay and plans of coconut, mango trees, or others allowing space for doors and windows. Places rafters as required to secure and strengthen structure. Levels floor by ramming it with mixture of paste of mud, water and straw dust, using hand ramming wooden blocks and makes it smooth and habitable. May thatch huts. May set tiles for roofing huts.

ISCO 08 Unit Group Details:

Code	7111
Title	House Builders

7111.0200

Thatcher

Thatcher constructs roofs of huts and cottages from straw rashes, reeds or dry palm leaves using shears or trimming knife. Collects straw, dry leaves, reeds and bamboos of required length. Spreads leaves, grass or reed as roofing material over rafters or bamboos frame and securely ties them with twin rope as required. Covers openings with extra straw or leaf to make it waterproof. Trims edges uniformly to make sides look even. Places thatched frame over roof of hut with assistance of others and positions it securely by fastening it with rafters and beams. May construct straw huts and small dwellings. May do rethatching of cottage and hut roofs.

ISCO 08 Unit Group Details:

Code	7111
Title	House Builders

7111.9900

Builders, Traditional Materials, Other

Builders, Traditional Materials, other include all those workers who erect, maintain and repair small and large buildings and other structures by using traditional building techniques and materials such as bamboo, hay, straw, reeds, mud, planks, poles or leaves not elsewhere classified.

ISCO 08 Unit Group Details:

Code	7111
Title	House Builders

Family 7112 Bricklayers and Related Workers

Bricklayers and related workers lay bricks, pre-cut stones and other types of building blocks in mortar to construct and repair walls, partitions, arches and other structures.

7112.0100

Stone Mason

Stone Mason; Stone Setter; Stone Fixer builds stone walls, pillars and other structures by sizing and setting dressed or undressed stones. Receives instructions regarding nature and type of work to be done. Cuts stones to required size prior to setting by chipping with chisel and other cutting tools and gets them dressed or dresses them if necessary. Gets mortar prepared by labourers and spreads it with trowel bit by bit over area where stones are to be fixed. Fixes stones manually one by one in position and sets them by tapping with hammer. Checks vertical and horizontal alignments of set stones with plumb bob, ensures correct setting by alterations if necessary and fills in gaps in between stone slabs with stone chips and mortar. Removes excess mortar with trowel to smoothen joints and stones to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

raise structure as required. May dismantle masonry and reset girders if necessary. May do plastering, repairing and ornamental work. May lay stones on levelled ground to construct floors pavements, streets, etc. May erect scaffolding for construction work.

ISCO 08 Unit Group Details:

Code 7112

Title Bricklayers and Related Workers

7112.0200

Bricklayer, Construction

Bricklayer, Construction; Brick Mason lays brick with mortar, and other construction material to construct and repair building-walls, arches, chimneys, floors, pillars and other structures. Receives instructions regarding nature and type of work to be done. Directs Labourers to prepare mortar in required proportions and water bricks. Spreads mortar by trowel over foundation or laid bricks and lays bricks by hand in horizontal rows or designs and shapes per approved specification. Taps bricks with trowel to embed them firmly in mortar and ensures correct vertical and horizontal alignment of brick setting by sight or with string and plumb bob. Closes gaps in between bricks by filling with half bricks and mortar and by tapping with trowel. Fixes wooden frames, lay lime concrete over roofing and sets girders in position. May dismantle masonry for reconstruction or facility of work. May do plastering, decoration pointing and repair work. May erect scaffolding.

ISCO 08 Unit Group Details:

Code 7112

Title Bricklayers and Related Workers

7112.0201

Plumbing Mason

Plumbing Mason is responsible for making masonry manholes, laying pipes in masonry works and other earth work related to plumbing.

Qualification Pack Details:

QP NOS Reference PSC/Q0106

QP NOS Name Plumbing Mason

NSQF Level 3

ISCO 08 Unit Group Details:

Code 7112

Title Bricklayers and Related Workers

7112.0300

Bricklayer, Refractory

Bricklayer, Refractory builds and repairs furnaces, ovens, kilns, fireboxes, fire places and other high temperature structures by laying and setting firebricks and refractory blocks, using chemical heat resistant cement, fireclay, mortar etc. with hand tools. Receives instructions from appropriate authority regarding nature and type of work to be done. Spreads minimum possible fireclay mortar evenly over furnace with trowel and lays and taps fire bricks or refractory blocks in position in correct alignment according to specification. Seals joints with fireclay mortar or chemically resistant cement to bind bricks together making provision for expansion of joints in furnace in linings. Prepares support to proper curvature to replace arched roofs of furnaces or to construct new ones as directed or specified. Patches portions of furnaces with fireclay, as necessary and removes excess of mortar. May specialize in building and repairing particular type of high temperature construction. May replace linings of ladles or tapping sports of furnaces. May build new smoke tunnels.

ISCO 08 Unit Group Details:

Code 7112

Title Bricklayers and Related Workers

7112.0400

Paviour

Paviour lays bricks and stone on levelled ground to make floors, pavements, streets etc. Receives instructions regarding type of pavement, floor or street to be laid and other specifications and collects materials required. Directs Labourers to level surface for laying bricks and stones for required construction. Lays stone slabs or bricks in line on levelled ground, by sizing them if necessary with brick hammer and trowel and tapes them to get set firmly in position. Checks alignment while laying using straight edge and spirit level and fills gaps in between with chips, bricks bits, cement etc.; May do pre-stressed and R.C. (reinforced concrete) work.

ISCO 08 Unit Group Details:

Code 7112

Title Bricklayers and Related Workers

7112.0500

Tar Supervisor

Tar Supervisor; Bitumen Supervisor supervises and guides laying of asphalt (complex mixture of hydrocarbons) or other bituminous (inflammable mineral substance) material over roads, roofs, etc. for surfacing and water-proofing. Gets drums filled with asphalt and other bituminous material heated on fire and ensures proper melting and mixing of contents. Directs workers to place "templates" (pattern of wood, iron etc. used as guide for levelling) on road or roof for proper laying and setting of asphalt

and other material. Puts on thin padding or rubber gloves to protect remain protected from burns, guides pouring of molten material or base and spreads it uniformly over set area with mop brush or other device. Ensures uniformity and even spreading of tar or bituminous materials on surface and applies subsequent coating if needed. Lays tar over angles and corners with special care and directs workers to apply sealing coat (spreading of gravel or sand over tar coating). Removes template and allows laid material to dry in sun before use. Is designated as BITUMEN SPRAYER if engaged in spraying hot liquid bitumen on road surface with spray gun connected with supply hose to tar heating tank. May use special thermometer to ensure required temperature of molten tar.

ISCO 08 Unit Group Details:

Code 7112

Title Bricklayers and Related Workers

7112.0601

Assistant Mason

Assistant Mason needs to work as semi-skilled category tradesman and perform tasks under instruction and close supervision of Mason Level-3 as Assistant Mason. He is expected to carry out the setting and layout, laying of bricks and blocks, rendering coat plastering, finishing of concrete, fixing doors and windows in a room/cubical while effectively engaging and supervising the Helper Mason under him for all trade relevant tasks. He should ensure trade specific compliance to environment, health and safety aspects

Qualification Pack Details:

QP NOS Reference CON/Q0102

QP NOS Name Assistant Mason

NSQF Level 2

ISCO 08 Unit Group Details:

Code 7112

Title Bricklayers and Related Workers

7112.9900

Bricklayers, Other

Brick Layers, Stone Masons and Tile Setters, Other include all other workers engaged in brick laying, tile setting, stone masonry and like tasks, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7112

Title Bricklayers and Related Workers

Family 7113

Stonemasons, Stone Cutters,

Splitters and Carvers

Stonemasons, stone cutters, splitters and carvers cut and shape hard and soft stone blocks and slabs for the construction and maintenance of stone structures and monumental masonry, and carve designs and figures in stone.

7113.0200

Stone Cutter, Hand

Stone Cutter, Hand cuts and shapes building and monumental stone from rough blocks or slabs of granite, marble etc. using pneumatic and hand tools. Places rough stone blocks or slabs in working position with aid of crane, hoist or other means. Marks out dimensional lines for cutting according to specifications. Cuts block to required size, shape and other specifications by drilling, chipping, splitting and chiselling stone

with pneumatic and hand tools. Checks size and shape frequently to ensure accuracy and prevent deep cutting.

ISCO 08 Unit Group Details:

Code 7113

Title Stonemasons Stone Cutters, Splitters and Carvers

7113.0300

Stone Dresser, Hand

Stone Dresser, Hand chips and chisels stone to required size and shape and joins surface using hand tools. Examines and selects blocks of granite, marble or other stone according to prescribed specifications. Places it in working position, measures it with measuring instruments such as scale, calliper-compass, etc. and marks it out according to specification for cutting. Chips off unwanted portion, sprinkles water over stone to serve as coolant and gradually finishes it to required size and shape. Checks size and shape frequently while chipping. May cut decorative designs on stone surfaces. May drill holes in stone if required.

ISCO 08 Unit Group Details:

Code 7113

Title Stonemasons Stone Cutters, Splitters and Carvers

7113.0400

Stone Carver

Stone Carver carves out figures, letters and artistic designs on stone blocks, slabs or pillars to be erected or laid for construction of buildings, temples, monuments etc., using hand tools. Studies drawings, designs, models, nature of carving and artistic features to be carved

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

on stone. Selects appropriate stone such as granite, green stone, soap stone, marble, etc. as required. Places stone in working position and lays out figures, designs, artistic features etc. on surface of stone with chalk, pencil or ochre solution by freehand sketching with drawing instruments and tracing papers or by taking measurements from model. Applies thin layer of oil, if using granite stone and carves out roughly along outline using hand hammer and chisel of different shapes and sizes. Files rough surfaces and brushes off dust as necessary while working. Sprinkles water on rough carving if working on stone other than granite and continues carving using small hammer and fine chisels. Drills holes with hand drill, as designed, using water as lubricant and smoothens object to desired finish by rubbing with stones. Checks work frequently against sketch or model while carving to ensure accuracy. May cut deep slits using saw blades. May carve out letters and figures and inlay them with lead or stone of different colours. May first make clay model of carving to be done.

ISCO 08 Unit Group Details:

Code 7113

Title Stonemasons Stone Cutters,
Splitters and Carvers

7113.0500

Stone Polisher, Hand

Stone Polisher, Hand; Stone Finisher polishes and finishes surface of stone by rubbing it evenly with block of stone or other abrasives. Places stone in working position on floor or working bench with aid of helpers, hoist or crane. Sprinkles water and Chambal sand on surface of stone and rubs it with different kinds and grades of powder pumice or other

abrasives, pours water frequently on surface thoroughly with water to remove abrasives. Rubs surface of stone with polishing powder and cloth pad after primary rubbing to obtain lustrous finish. May specialize in polishing particular kind of stone, such as marble or granite and be designated accordingly. May use portable polishing machine.

ISCO 08 Unit Group Details:

Code 7113

Title Stonemasons Stone Cutters,
Splitters and Carvers

7113.9900

Stone Splitters, Cutters and Carvers, Other

Stone Splitters, Cutters and Carvers, other include those stone splitters, cutter and carvers not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7113

Title Stonemasons Stone Cutters,
Splitters and Carvers

Family 7114

Concrete Placers, Concrete Finishers and Related Workers

Concrete placers, concrete finishers and related workers erect reinforced concrete frameworks and structures, make forms for moulding concrete, reinforce concrete surfaces, cement openings in walls or casings for wells, finish and repair cement surfaces and carry out terrazzo work.

7114.0100

Concrete Moulder

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Concrete Moulder; Cement Block Moulder moulds and finishes cement concrete blocks of various shapes and sizes such as sills, beams, railing, flower vases and other construction and decoration articles. Examines drawings and other specifications and draws approximate estimates of material required. Selects wooden mould of required size and pattern. Mixes cement, sand, lime etc. and prepares cement concrete mortar by adding requisite quantity of water to them. Places and fixes required number of sized iron rods into mould and pours cement concrete mortar into it. Rams concrete with iron rods to make it compact. Levels surface of mould by filling with concrete and smoothenes it with trowel and wooden smootheners. Allows concrete to settle for specified period in mould for hardening. Removes shuttering, soaks it in water for curing and gets it dried in shades. May cut artistic designs on cast material before it gets hard.

ISCO 08 Unit Group Details:

Code 7114
Title Concrete Placers, Concrete Finishers and Related Workers

7114.0200

Cement Finisher

Cement Finisher finishes surfaces of concrete structures and smoothenes surfaces of freshly poured concrete sections. Cuts ridges, bumps and projecting wire from concrete surface with chisel and hammer. Patches holes and broken corners by wetting them, spreading mortar into them and smoothing surface with trowel or float. Removes blemishes from and smoothenes surface by wetting or applying liquid mixture of sand, cement and water and rubbing with abrasive black. Finishes

surface by wiping it with damp brush. Levels, smoothenes and shapes surfaces of freshly poured concrete sections with straight edge and float for fine finish and edging tool to shape corners. May specialize in particular type of concrete finishing work and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7114
Title Concrete Placers, Concrete Finishers and Related Workers

7114.9900

Concrete Placers, Concrete Finishers and Related Workers, Other

Concrete Placers, Concrete Finishers and Related Workers, other include all other workers who erect reinforced concrete frameworks and structures, make forms for moulding concrete, reinforce concrete surfaces, cement openings in walls or casings for wells, finish and repair cement surfaces and carry out terrazzo work not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7114
Title Concrete Placers, Concrete Finishers and Related Workers

Family 7115 Carpenters and Joiners

Carpenters and joiners cut, shape, assemble, erect, maintain and repair various types of structures and fittings made from wood and other materials.

7115.0100 Carpenter, General

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Carpenter, General makes, assembles, alters and repairs wooden structures and articles according to sample or drawing using hand or power tools or both. Studies drawing on sample to understand type of structure or article to be made and calculates quantity of timber required. Selects timber to suit requirements. Marks them to size using square, scribe etc. Saws, chisels and planes wooden pieces to required sizes and makes necessary joints such as half lap, Tenon mortice, dove-tail etc. using saws, planes, mortising, chisels, drills and other carpentry hand or power tools as required. Checks parts frequently with square, foot rule, measuring tape etc. to ensure correctness. Assembles parts and secures them in position by screwing, nailing or doweling. Checks assembled structure with drawing or sample; rectifies defects if any, and finishes it to required specifications. Alters, repairs or replaces components in case of old structures or articles in similar manner. May glue parts together. May smoothen and finish surface with sand paper and polish. May fix metal fittings to structure and polish. May fix metal fittings to structure or article made. May calculate cost of furniture. May sharpen his own tools.

ISCO 08 Unit Group Details:

Code 7115
Title Carpenters and Joiners

7115.0200 Carpenter, Construction

Carpenter, Construction; Carpenter Building makes, assembles, alters and repairs doors, windows, frames and other wooden fixtures of building using hand or power tools or both. Studies drawings or samples and calculates quantity of timber

required. Saws over size pieces by power or hand tools or collects lumbers for making various components. Plans two sides of above pieces, marks off dimensions using tri-square, scribe, pencil etc., and reduces them to required sizes by adzing, sawing and planning. Marks off different members, cuts them as required and shapes and makes Tenon and mortise, half lap and other joints by sawing, chiselling, drilling and filling. Checks pieces frequently while sizing and shaping to ensure correctness. Assembles framework step by step by gluing, cramping, dowelling, nailing and screwing as required. Examines finished article for accuracy. Fits metal rods, hinges etc., to wood work where necessary and rectifies defects in fittings if any. Sharpens his own tools. May erect scaffoldings if necessary.

ISCO 08 Unit Group Details:

Code 7115
Title Carpenters and Joiners

7115.0201 Assistant Shuttering Carpenter

Assistant Shuttering Carpenter works as semi-skilled category tradesman and performs tasks under instructions and close supervision of Shuttering Carpenter Level-3 as an Assistant Shuttering Carpenter. He is expected to make, assemble, erect and dismantle conventional/system formwork for all type of in situ and pre-cast RCC work, reading drawings, setting and layout. He should ensure trade specific compliance of environment, health, safety aspects and should engage and supervise the Helper Shuttering Carpenter under him for all relevant tasks.

Qualification Pack Details:

QP NOS Reference CON/Q0302

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Assistant Shuttering Carpenter
NSQF Level	2

ISCO 08 Unit Group Details:

Code 7115
Title Carpenters and Joiners

7115.0300

Carpenter, Structural

Carpenter, Structural builds, erects and repairs wooden structures such as building frames, stage and studio fixtures, roofs, walls, wooden shingles etc., using hand or power tools or both. Studies drawing or sample or receives instructions regarding structure to be built and calculates quantity of timber required. Selects required type of timber and marks them for dimension using measuring tape, square, pencil, etc. Sizes different parts from oversize pieces by sawing, adzing and smoothening using power or hand tools. Makes necessary joints such as Tenon and mortise, scraf, half-lap etc., for joining different members. Checks pieces with square, measuring tape, foot rule etc., to ensure correctness. Assembles different parts or panels step by step to form complete structure. Sharpens his own tools. May carve designs and polish structures.

ISCO 08 Unit Group Details:

Code 7115
Title Carpenters and Joiners

7115.0400

Carpenter, Village

Carpenter, Village makes and repairs country ploughs, carts, doors, windows, frames and such other agricultural and domestic articles by simple carpentry processes using hand tools. Studies

sample and selects required type of timber and other materials. Cuts oversize pieces, as required by sawing, adzing, chiselling and smoothening. Marks with pencil, marking gauge or line and reel. Shapes different pieces and makes necessary joints by smoothening, drilling, chiselling etc. Assembles them part by part by nailing dowelling or screwing as necessary. Fits metal tyres to rim, blades to ploughs, hinges and hasps and staples to doors etc., and ensures their proper functioning. Sharpens his own tools. May fit wooden wedges to tighten joints. May perform simple blacksmithy tasks.

ISCO 08 Unit Group Details:

Code 7115
Title Carpenters and Joiners

7115.0500

Joiner, Wood

Joiner, Wood joins and assembles prefabricated wooden-plank boards, building-fixtures, etc. using hand or power tools or both. Collects prefabricated planks of required sizes. Joins required number of planks with double ended nails to form sides of structure. Assembles framework step by step by nailing or screwing. Sharpens his own tools. May fit strengthening band or mild steel hoop by nailing or screwing for strengthening boxes and cases, if necessary. May make crate for packing. May be designated as WOODEN BOX MAKER; CARPENTER, PACKING CASES if engaged in making wooden boxes or packing cases of specified dimensions.

ISCO 08 Unit Group Details:

Code 7115
Title Carpenters and Joiners

7115.0600

Lofts Man, Ship Building

Lofts Man, Ship Building develops full size measurements from drawings to prepare templates for manufacture of shell plates and other parts of ship. Studies drawings, considers elevation and draws full scale drawings with chalk on scribe board (wooden board on which various measurements are marked to enable drawing of shell, shell plate, margin plate etc. for ship, to develop full scale templates to be prepared) for making templates. Draws full size lines of ship body on scribe board, ensures that plans of drawings of adjacent components agree and fit accurately and draws them to full scale on it using scale contours, chalks etc. Instructs Carpenter in preparation of templates according to dimensions drawn on scribe board and marks instructions on them with ink for guidance of fabrication section. Issues templates to concerned section, explains details of measurements for fabrication of steel panels to form various components of ship body and receives them back after use. Stores templates in prescribed place for further use and maintains their account.

ISCO 08 Unit Group Details:

Code	7115
Title	Carpenters and Joiners

7115.0700

Shipwright

Shipwright erects props and temporary structures to stabilize and support ship during, construction and repairs in shore. Aligns ship structure according to designed centre line and angle of declivity and plots and marks reference points and lines on building dock or way to maintain alignment of vessel during construction or

repairs, using transit, plumb bob, tapes and levels. Builds keel blocks, bilge blocks, cradles and shoring for supporting ship in dry dock, building docks etc. using power and hand wood-working tools. Positions and secures blocking and other structures on dock platform according to ship's blue-prints. Aligns vessel over blocks and establishes reference points and lines on ship's hull for locating machinery and other equipment in accordance with ship's alignment and shape. Fabricates and installs furring pieces (timber strips of constant width but varying depth), aprons, uprights and other wood framing in ship according to specifications and shapes and finishes them. Nails or bolts metal fittings, plates and bulk heads to wooden parts of ship using brace, drill bits, augers, spanners etc. and ensures correct alignment of hull, frame and fittings. Levels ground ways, runners, wooden blocks etc., erects props, fastens standing ways by wire ropes, fits launching triggers and performs related tasks to prepare entire launching ways to launch a ship. Gets all material and timber salvaged after launching for use in subsequent operation.

ISCO 08 Unit Group Details:

Code	7115
Title	Carpenters and Joiners

7115.0800

Lascar Stager, Ship Building

Lascar Stager, Ship Building erects temporary wooden structures and scaffoldings for placing staging planks inside and outside ship under construction or repairs to facilitate work. Erects steel or tubular uprights and ledgers or cross bars for resting staging planks as guided by Serang and keeps them secure from strong winds and accidents. Assists

Shipwright, Wood as directed and dismantles scaffoldings and other wooden structures to arrange launching of ship. Is designated as SERANG, SHIP BUILDING if engaged in building and supervising erection and removal of wooden structures and scaffoldings and related tasks. May assist Shipwright in aligning ship structure and perform other tasks as guided.

ISCO 08 Unit Group Details:

Code	7115
Title	Carpenters and Joiners

7115.1100

Carpenter Worker, Boat Building

Carpenter Worker, Boat Building designs boats and guides Carpenters, Boat Building, Wood Sawyers, Hand etc. in constructing them according to specifications. Designs small boats and rafts; watches construction of templates, ribs, planking etc.; and guides construction at every stage of checks; laying of keel, setting of templates, fitting of ribs etc. and corrects them if necessary. Checks broken ribs and prescribes dimensions for fitting new ones. Examines planks for 'grains', instructs carpenters to insert small pegs where 'knots' are found and ensures correct riveting of planks on ribs. Draws 'mould loft' (full scale drawing) based on design on platform and guides Carpenters in engine, davit (side crane), winch and other installations, shaft alignment, rudder fitting, copper-sheet fitting, cabin fixture settings, etc. on boats. May supervise workers in saw mill attached to boat-building yard if required.

ISCO 08 Unit Group Details:

Code	7115
Title	Carpenters and Joiners

7115.1200

Carpenter, Boat Building

Carpenter, Boat Building constructs and repairs boats, launches dredgers, barges etc. according to prescribed specifications by various carpentry processes. Lays keel on wooden fixtures and fits stem, stern and templates as to keel with bolts and nuts. Places cut planks on skeleton of boat to ascertain suitability and remodels their shape, if required, with hand tools. Seasons planks and ribs (wooden reapers) either with steam in masonry steam box (gutter) or by applying oil over articles, heating them on fire and bending them lightly with hand as required. Fixes planks on templates with brass screws, nails ribs on bull with copper nails and rivets planks and ribs together as specified. Fits wooden clamps, mounts and fixes stringers (thick wooden planks) knee (wooden block between wooden clamps and built joints inside hull) etc. as required. Removes templates from completed boat. Bores holes over required part of hull, fixes engine foundation, lowers engine on foundation by chain block and secures it in position with bolts and nuts. Determines propeller shaft alignment and bolts shaft to engine coupling. Hoists and fixes decks, chains, mast, booms etc. on boat as per requirements. Fits copper sheeting over outer portion of hull with copper nails and fixes rudder, rudder-shoe, exhaust pipe and such other accessories on boat as specified. Performs all wood work repairs to boats, lages etc. under guidance of Carpenter Mistry, Boat Building. May construct wooden accessories for boats such as engine foundation, templates, ribs etc.

ISCO 08 Unit Group Details:

Code	7115
Title	Carpenters and Joiners

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7115.1300

Caulker, Boat Building

Caulker, Boat Building caulks seams of deck, hull and keel of boat with caulking material, using hand tools. Mixes caulking materials such as caulking cotton and oakum in coconut oil or pitch in castor oil. Makes clearances with chisel on seams and plank joints where required. Inserts caulking material by hand and blunt chisel inside clearances made and beats with hammer to push caulking material lightly into them. Observes caulked portions to ascertain defective caulking and rectifies them by inserting further layers of material, if necessary. Melts rosin and vep oil in fire and strains and mixers it (mixture) with required quantity of quick-lime to make Putty. Applies putty by hand over caulked portions on boat. Examines and applies final touch as putty where necessary. May prepare putty with paint, chalk and linseed oil to apply it over portions above water level and where copper sheeting are not provided.

ISCO 08 Unit Group Details:

Code 7115

Title Carpenters and Joiners

7115.9900

Carpenters and Joiners Operatives, Other

Carpentry and Joinery Operatives, other perform variety of routine and low skilled tasks such as sawing, cleaning, rough planning, drilling etc., and may be designated as Carpenter Mate, Carpenter Helper, Joiner Helper, etc.

ISCO 08 Unit Group Details:

Code 7115

Title Carpenters and Joiners

Family 7119

Building Frame and Related Traders Workers, Not Elsewhere Classified

This family covers building frame and related trades workers not classified elsewhere in group 711, Building frame and related trades workers. For instance, the group includes steeplejacks, scaffolders and demolition workers.

7119.0100

Well Digger

Well Digger digs wells to obtain water and for constructing base for structural columns and pillars. Examines earth to select digging implements such as shovel, hammer, etc. Locates area and marks outline on ground. Digs pit by excavating earth with pick axe and shovel and bails out excavated earth using basket. Fixes tripod structure over well to facilitate digging and bailing out of mud from depth and repeats process of digging and excavating earth to required depth. Sets baked earthen or prefabricated cement concrete rings from water level up to surface in well to prevent caving of surrounding soil into it. Raises surface structure around well by securely setting some more cement or earthen rings or gets cover wall constructed around it up to suitable height to prevent accidental fall into it. May get brick wall gradually constructed and sunk around total depth of dug earth in well, particularly in areas having soft soil. May pump out water through bucket or hand pump. May blast rocks with dynamite.

ISCO 08 Unit Group Details:

Code 7119

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Building Frame and Related Traders Workers, n.e.c.

7119.0200

White Washer

White Washer applies white or colour wash in wall ceiling etc. using hand brush. Studies colour scheme and estimates material required. Selects lime or colour according to specification and prepares colour or white lime solution mixing it with water. Strains mixture and visually tests its density and shade. Makes end of washing brush soft and uniform. Scrapes and cleans surface to be white washed and washes wall or ceiling with lime or colour using hand brush. Examines washing after drying and applies second coat on defective patches to make it look uniform. May do minor plastering repairs.

ISCO 08 Unit Group Details:

Code 7119

Title Building Frame and Related Traders Workers, n.e.c.

7119.0301

Assistant Scaffolder

Assistant Scaffolder is able to put up scaffold, rigs, guard rails and planks securely and fix the items at heights by observing and ensuring all safety and security measures. The main task of scaffolder is to erect scaffolding, shoring or brace, select tools, equipment and materials from yard and transport item to site.

Qualification Pack Details:

QP NOS Reference CON/Q0303

QP NOS Name Assistant Scaffolder

NSQF Level 2

ISCO 08 Unit Group Details:

Code 7119

Title Building Frame and Related Traders Workers, n.e.c.

7119.9900

Building Frame and Related Trades Workers, other

Building Frame and Related Trades Workers, other include workers engaged in building frame and related trades tasks not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7119

Title Building Frame and Related Traders Workers, n.e.c.

Group 712

Building Finishers and Related Trades Workers

Building finishers and related trades workers cover, apply or install, maintain and repair roofs, floors, walls, insulation systems, glass in windows or other frames, as well as plumbing, piping and electrical systems in buildings and other structures.

Occupations in this Group are classified into the following Families:

7121 Roofers
7122 Floor Layers and Tile Setters
7123 Plasterers
7124 Insulation Workers
7125 Glaziers
7126 Plumbers and Pipe Fitters
7127 Air Conditioning and Refrigeration Mechanics

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family 7121 Roofers

Roofers build and repair roofs on all types of buildings using one or more kinds of materials.

7121.0100 Tile Layer, Roof

Tile Layer, Roof lays and sets tiles over rafters joining them with mortar to make roofs of buildings. Measures location for each row of tiles over rafters and estimates quality and quantity of material required. Marks guide lines with chalk. Discards defective tiles and places good tiles in position on buttons over rafters adjusting them in grooves by hand as required and cutting and shaping them wherever necessary for proper setting and alignment. Inserts nails or cement mortar in between tiles to fix and make them water tight. Fills gap between tiles or covers exposed nails with cement. Cleans surface of tiles using gunny bag and water. Ensures proper setting of tiles by observation and using alignment string and wooden level. May replace broken tiles and punch holes where required.

ISCO 08 Unit Group Details:

Code 7121
Title Roofers

7121.9900 Roofers, Other

Roofers, Other include all other workers engaged in roofing buildings and structures such as those setting and fixing galvanized iron, asbestos sheets, or other materials for roofing purposes, mending leakages in them by repairs or

replacements, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7121
Title Roofers

Family 7122

Floor Layers and Tile Setters

Floor layers and tile setters install, maintain and repair flooring, and cover floors, walls and other surfaces with tiles or mosaic panels for decorative or other purposes.

7122.0100 Tile Setter

Tile Setter; Tile Layer fits and sets tiles to walls, floors and ceilings of buildings according to specified design using cement or other mortar and hand tools. Receives instructions regarding specifications, layout and material to be used. Soaks tiles in water to prepare them for setting. Applies mortar or cement coat over wall with trowel and lays tiles aligned in rows according to pattern. Checks alignment of tiles laid with straight edge, levelling hoard, spirit level etc., makes adjustments if necessary and taps them with trowel handle to get them set firmly. Sprinkles dry cement over freshly laid concrete for laying floor tiles and ensures proper bond between cement and tiles while laying. Cuts and shapes tiles for corner pieces, fills gaps with cement as necessary and ensures proper joining setting and alignment. May erect scaffolding for setting ceiling tiles.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7122

Title Floor Layers and Tile Setters

7122.0200

Concrete Mixer (Mosaic Tile)

Concrete Mixer, Mosaic Tile makes ready mix (mall) for making mosaic tiles by mixing cement, marble chips and other colouring ingredients in water. Studies requirements of customers and evolves colour pattern scheme and shades. Measures required quantity of cement, marble powder or chips and colouring powder (oxides) and places them in container. Adds prescribed quantity of water to mixture. Mixes it uniformly using hand trowel to make paste of required consistency. Places ready mix (mall) near tile presser for making mosaic tiles. Checks whether mixture conforms to required colour and shade by making sample tile and alters proportion of mixture to attain required colour combination if necessary. May operate tile pressing machine.

ISCO 08 Unit Group Details:

Code 7122

Title Floor Layers and Tile Setters

7122.0300

Tile Presser (Mosaic)

Tile Presser, Mosaic makes coloured mosaic tiles for floor walls etc. according to design. Places metal mould of required size on table, cleans it with brush and applies linseed oil on its surface. Fills mould manually with prescribed quantity of cement mixture (mall) containing marble chips or powder. Levels mixture in mould using metal spreader. Sprays dry (nead) cement powder over mixture for absorbing moisture when pressed. Fills layer of cement powder with wet mixture

of cement and sand and closes mould with metal lid or cover. Places filled mould under hand or hydraulic press and operates it by levers to press mixture in mould to form tiles of required shape. Removes pressed mould and dismantles frame. Removes pressed tile places it on racks for drying before curing it in water and repeats process. May repair hand or hydraulic presses.

ISCO 08 Unit Group Details:

Code 7122

Title Floor Layers and Tile Setters

7122.0400

Planer (Mosaic Tile)

Planer, Mosaic Tile operates smoothening machine to grind surface of mosaic tiles to evenness and to expose marble chips to view. Starts machine fitted with revolving circular metal plate. Places tiles on revolving bed of machine with smooth side of tiles facing metal plate on entire area of circular bed. Fills tanks placed above machine with water and sand and opens them to allow water and sand to fall on rotating bed in prescribed ratio. Watches tiles getting ground by mixture of water and sand in metal bed for prescribed period of time and ensures required finish. Removes ground or planed tiles from bed of machine and replaces them with fresh tiles. Keeps place neat and tidy.

ISCO 08 Unit Group Details:

Code 7122

Title Floor Layers and Tile Setters

7122.0500

Mosaic Layer

Mosaic Layer; Terrazzo Layer lays mosaic surface and floors according to specified designs using stone chips cement sand etc. and gives glossy finish to surface. Examine drawings and pattern of mosaic laying and estimates material required. Selects material like stone chips of required colour, cement, sand etc. and mixes them together in water or takes up mosaic panels, mosaic tiles, stones, ceramic, opaque coloured glass and similar other material as designed. Prepares ground by setting levels and laying cement mixture or lime mortar to required thickness. Allows cement floor to set and dry. Rakes-out (clips off) cement floor with trowel or otherwise to create unevenness over surface and spreads coating of mosaic plaster material over it. Levels and smoothens it with trowel and wooden smoother and cures it with water for specified period. Grinds surface with stones to give glossy finish. Pour noad cement (Mixture of cement and water) on surface for grouting, lays mosaic tiles and panels on it according to design, if necessary after sizing them, levels them with wooden leveller to ensure uniform height and fills gaps in between them with cement of matching colour if engaged in laying precast tiles and panels. Ensures proper setting and cures laid tiles and panel, sprinkling water as required. Cleans surface by rubbing with polishing machine or hand grinding stones and cleans it with gunny bag. May apply finishing and shining polish. May cut mosaic panels out of bigger pieces.

ISCO 08 Unit Group Details:

Code 7122

Title Floor Layers and Tile Setters

7122.0600

Parquetry Floor Layer

Parquetry Floor Layer lays all kinds of ornamental parquetry floor designs according to lay-outs furnished by Architect. Studies design and shapes and finishes required type of wood accordingly. Covers sub-floor with building paper or other material to protect wood from moisture. Nails wood flooring according to design, if necessary by further tooling to suit dimensions. May secure floor to mastic or asphalt base without using nails. May hammer narrow strips of wood into place on asphalt-mastic base.

ISCO 08 Unit Group Details:

Code 7122

Title Floor Layers and Tile Setters

7122.9900

Floor Layers and Tile Setters, Other

Floor Layers and Tile Setters, Other include all other workers engaged in floor laying and tile setting, like tasks, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7122

Title Floor Layers and Tile Setters

Family 7123

Plasterers

Plasterers install, maintain and repair plasterboard in buildings, and apply decorative and protective coverings of plaster, cement and similar material to the interiors and exteriors of structures.

7123.0100

Plasterer

Plasterer plasters walls, ceilings and other surface of structures with cement, lime,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

mud or other mortar using hand trowel, level etc. Mixes sand, cement, lime brick powder etc. in required proportion adding water to it to prepare plastering mortar. Wets structure to be plastered with water to ensure proper adherence; spreads plaster with trowel to give preliminary coating. Levels and smoothen primary coat of plaster with straight edge, shapes borders to guide second coating and scratches surface of primary coat to provide bond for subsequent coating. Plasters area to be covered with primary coat and allows it to set for some time ensuring that it does not get dry before final coating. Applies thin layer of finish plastering coat over surface, makes out corners and angles to suit it and smoothen plastered area with straight edge and trowel. Directs and supervises sprinkling of water for curing during plastering and watches drying and final outcome of surface. May undertake ornamental plastering.

ISCO 08 Unit Group Details:

Code	7123
Title	Plasterers

7123.9900

Plasterers, Other

Plasterers, other include workers who install and repair laths and apply plaster to walls and ceilings of buildings not elsewhere classified.

ISCO 08 Unit Group Details:

Code	7123
Title	Plasterers

Family 7124 Insulation Workers

Insulation workers apply and repair insulating materials to buildings, boilers, pipes or refrigeration and air-conditioning equipment.

7124.0100

Building Insulator, Hand

Building Insulator, Hand applies slabs or bats (sheets) of insulating material, such as cork or spun glass, to walls, floors and ceilings in buildings. Examines drawings and other specifications. Nails or wires bats of insulating material, such as rock wood or spun glass to interiors of walls, on attic roofs and on bottom of floors, or spreads hot asphalt on surface and embeds courses of cork slabs in it, or spreads cement mortar with trowel on slabs and sticks them to surface. Nails slabs to walls and ceilings for additional security. Saws slabs to make them fit at ends of courses and around outlets and fixtures. May construct interior insulating walls by fixing courses of compressed cork blocks one upon another with cementing substance. May finish cork surface of walls and ceilings with plaster or spread concrete over floor slabs to form wearing floor.

ISCO 08 Unit Group Details:

Code	7124
Title	Insulation Workers

7124.0200

Acoustical Insulator

Acoustical Insulator applies adhesive sound absorbing material upon ceilings and other surfaces with power driven machine to reverberation of sound. Prepares machine for operation by filling container with insulating material. Starts machine and directs hose nozzle towards

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

surface to be covered. Applies insulating material to surface in even layer of required thickness. (Excluded are workers who fit acoustical boards by hand to surfaces).

ISCO 08 Unit Group Details:

Code	7124
Title	Insulation Workers

7124.0300

Insulator, Boilers and Pipes

Insulator, Boilers and Pipes applies insulating material such as asbestos mastic, cork, felt or mineral wool to exposed hot or cold surfaces of equipment such as boilers, pipes or tanks. Cleans surface of object to be insulated. Binds heavy wires around object and attaches small tie wires to them. Applies base coating of asbestos mastic or insulating cement to surface or covers object with layer of insulating material. Covers base or coating or layer with wire netting to reinforce insulation. Fastens netting in place with small tie wires. Applies one or more coatings over wire netting and smooths final coat with trowel. May cover object with felt bound with wire or with gauze covered with plaster of Paris. May cover insulated pipes, etc., with strips of canvas or sacking. May paint or whitewash insulating surface.

ISCO 08 Unit Group Details:

Code	7124
Title	Insulation Workers

7124.0400

Insulator, Refrigeration and Air Conditioning Equipment

Insulator, Refrigeration and Air Conditioning Equipment insulates refrigeration and air-conditioning equipment with various materials, such as cork or asbestos, to retain desired temperature. Shapes, trims and smooths insulating sheets and blocks to cover and to fit parts of equipment such as expansion chamber, condenser and piping. Applies waterproof cement to insulating material and surfaces of members to be insulated and presses them together. Secures insulating material with wire and wire netting. Applies one or more layers of asbestos plaster over wire netting with trowel. Packs walls or partly assembled casing with sheets or loose particles of insulating material. May apply insulating material to hot or cold air ducts and pipes.

ISCO 08 Unit Group Details:

Code	7124
Title	Insulation Workers

7124.9900

Insulation Workers, Other

Insulators, other include all other workers engaged in various tasks in insulating plants, buildings and equipment, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	7124
Title	Insulation Workers

Family 7125 Glaziers

Glaziers measure, cut, finish, fit and install flat glass and mirrors.

7125.0100

Glazier, (Construction)

Glazier; Glass Fitter; Glass Setter (Construction) cuts glass panes or plates to required size and shape and sets them into doors, windows, skylights, showcases, partition of buildings etc. using hand tools. Measures frame where glass is to be fixed and selects required type of glass sheet. Marks glass according to measurements, cuts it along markings and smoothens edges using hand tools. Mixes chemical ingredients in set proportions to prepare putty for fixing glass. Cleans frame in which glass pane is to be fixed and secures it in frame with nails, metal spring or spring clips. Applies putty evenly on edges firmly to secure glass pane on frame and smoothens with blunt knife or otherwise to ensure desired finish. May fix glass in metal frames by providing rubber lining.

ISCO 08 Unit Group Details:

Code	7125
Title	Glaziers

7125.0200**Glazier, Vehicle**

Glazier, Vehicle cuts ordinary and pressurised glass or moulded cellulose acetate to correct size and fits them in frame of windows, wind-shields, and doors of automobiles, aircrafts, railways and tram coaches etc. edging them with rubber or leather packing. Measures size of door, window, wind-shield frame etc. where glass is to be fixed. Selects appropriate type of glass, cuts it with cutting tool according to requirements and smoothens edges with hand grinder. Heats pressurised and shatter proof glass panels along marked line and breaks it by pressing with hands to required size. Fixes channelling rubber, rubber-lining or

leather around edges of glass and sets and secures glass firmly in groove. Oils locks and sets locking chain device while fixing glass panels in automobile doors and ensures their easy raising and lowering operations. Checks and ensures proper setting and fixing of glass by tapping it with hand to feel resistance to wind vibrations produced in running vehicles. May polish glass.

ISCO 08 Unit Group Details:

Code	7125
Title	Glaziers

7125.0300**Picture Framer**

Picture Framer; Photo Framer cuts glass, frame pieces and cardboard to required size and mounts pictures and photos in frame. Measures size of pictures and cuts frame pieces to required size. Cuts joints at ends of wooden frame pieces and fastens them together with nails to make frame. Places glass sheet on working bench and marks outlines according to required measurements. Cuts glass along marking with cutting tool and smoothens its edges. Cuts plywood and cardboard pieces to size using hand saw and scissors. Fixes Glass in frame, puts picture facing glass over it and places cardboard and plywood on reverse of picture. Drives small nails suitably on rear of frame to hold mounted picture compact and secure glues plain or decorative paper at back; fixes hook on frame to facilitate hanging. Is designated as MIRROR FRAMER if specialized or engaged in framing mirrors. May use only cardboard on reverse side for mounting ordinary pictures. May polish or varnish picture and mirror frames. May grind glass edges by grinding machine.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code	7125
Title	Glaziers

7125.9900

Glaziers, Other

Glaziers, other include all other workers engaged in different tasks, glazing operations in vehicles, buildings and other structures, not elsewhere classified.

ISCO 08 Unit Group Details:

Code	7125
Title	Glaziers

Family 7126

Plumbers and Pipe Fitters

Plumbers and pipe fitters assemble, install, repair and maintain pipe systems, fittings and fixtures for water, gas, drainage, sewerage systems, and hydraulic and pneumatic equipment.

7126.0101

Plumber, General

Plumber, General lays out, assembles, installs and maintains sanitary fittings and fixtures, sewage and drainage systems, heating and sanitary systems, gas and water pipe lines etc. Receives instructions from Sanitary Engineer or Civil Engineer regarding lay out of pipes, gas or water mains, position of fixtures and fittings, etc. Examines drawings or other specifications regarding size and dimensions of area where sanitary fittings or pipe are to be fitted or laid. Marks points at places to indicate position for fixing brackets and laying pipes. Drills passage holes in walls or floor of premises and fixes necessary brackets, stands, holders etc. to keep or hold fittings and fixtures in position, using nuts, bolts, clamps etc. and tightens them with hand tools. Cuts reams, threads and

bends pipes as appropriate. Ensures that pipe lines are laid properly by Pipe Fitter. Joins pipes with sockets, Tees, elbow etc. or with molten lead or lead wool. Caulks joints (operation of making joint seam tight to withstand pressure) and tests them for leaks with pneumatic or hydraulic pressure. May repair and maintain sewerage and pipe lines by replacing washers on leaky faucets, mending burst pipes, opening clogged drains, etc. May do lead burning, dressing and bossing of lead pipe and sheet lead, inlaying of wooden tanks, construction of septic tanks etc.

Qualification Pack Details:

QP NOS Reference	PSC/Q0104
QP NOS Name	Plumber (General)
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0102

Plumber, Operations

Plumber (Operations) is responsible for operation of plumbing system used in housing, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference	PSC/Q0108
QP NOS Name	Plumber (Operations)
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0103

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Plumber, General-Installation and Repair

Plumber (General)-II is responsible for installation and repair plumbing systems including those of advanced sanitary fixtures as per manufacturer's specifications in housing, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference	PSC/Q0110
QP NOS Name	Plumber (General)-II
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0104

Plumber, General Helper

Plumber (General) Helper is responsible for helping Plumber (General) by carrying and handling of tools and materials required in installation, minor repair and maintenance of plumbing systems.

Qualification Pack Details:

QP NOS Reference	PSC/Q0101
QP NOS Name	Plumber (General) Helper
NSQF Level	1

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0105

Plumber, General Assistant

Plumber (General) Assistant is responsible for assistance in, preliminary installation and minor repair work of basic plumbing systems in domestic, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference	PSC/Q0102
QP NOS Name	Plumber (General) Assistant
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0106

Plumber, Maintenance and Servicing Assistant

Plumber (Maintenance and Servicing) Assistant is responsible for assistance in maintenance and servicing of pipes and sanitary fixtures in housing, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference	PSC/Q0109
QP NOS Name	Plumber (Maintenance & Servicing) Assistant
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0107

Plumber, Maintenance and Servicing

Plumber (Maintenance and Servicing) is responsible for assistance in maintenance and servicing of pipes and sanitary fixtures in housing, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference	PSC/Q0112
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Plumber (Maintenance & Servicing)
SQ. Level	3

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0201

Pipe Layer/Plumber Pipeline

Pipe Layer; Sewer Pipe Layer lays concrete, stone ware or clay pipes to form sanitary drains and sewers. Receives instructions regarding size and type of concrete, stone ware or clay pipe to be laid. Digs or gets earth dug along marked lines using spade, picks etc. to make trenches for laying pipes. Levels and smoothens bottom of trenches to proper gradient by scooping with shovels. Receives pipes of required size lowered into trench manually or by pulley and adjusts their position by hand or crow-bar for correct levelling and vertical and horizontal alignment. Joints pipes together using appropriate couplings, joints, rings etc. and closes joints by caulking with fibre and cement to prevent leakage. Tests joints by hydraulic or pneumatic pressure after sealing. Fills trench with earth to cover laid pipe and rams earth to avoid sinking. Is designated as PIPE LAYER WATERMAINS or WATER MAINS FITTER if engaged in laying cast iron or galvanized iron water pipe mains and in caulking their joints with lead to prevent leakage. May lay pipe lines to provide water connection to houses, sanitary sewers etc. May fix meters to stopcocks, remove defects from pipe lines and replace defective ones.

Qualification Pack Details:

QP NOS Reference	PSC/Q0107
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QP NOS Name	Plumber Pipeline
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0301

Pipe Fitter

Pipe Fitter lays repairs and maintains, pipes for supply of water, gas, oil or steam in buildings, gardens, workshops, stores, ships etc., according to drawings or instructions. Examines drawings and other specifications or receives relevant instructions. Cuts passage holes for laying pipes in walls and floors. Cuts reams, threads and bends pipes according to specifications. Lays pipes in cut passage and assembles pipe sections with couplings, sockets, Tee's elbows etc. Levels position of pipes using spirit level for gravitational flow. Caulks joints, tests them for leakage with pneumatic or hydraulic pressure and secures pipe line to structure with clamps, brackets, and hangers. Fits water meters, taps etc. to pipe where necessary. Repairs and replaces leaky pipe lines, taps and joints and provides connections to overhead water tanks. Helps Plumber, General in fittings sanitary fittings to buildings. May join pipe sections and fittings.

Qualification Pack Details:

QP NOS Reference	PSC/Q0108
QP NOS Name	Plumbing (Sanitary Fixtures) Fitter Assistant
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7126
Title	Plumbers and Pipe Fitters

7126.0400**Straightening Machine Operator
(Iron and Steel)**

Straightening Machine Operator, Iron and steel operates hydraulic, mechanical or pneumatic straightening machine to straighten girders, bars, tubes, joints, plates, angle irons, rails, etc., to required accuracy. Sets metal to be straightened between fixed supports on machine bed using crane and with assistance of helpers as necessary. Locates bent portion of metal to be straightened, by sight, scale or level. Starts machine. Manipulates hand wheel of machine to lower or raise moving ram of machine over metal object to be straightened. Adjusts stroke of ram to required pressure according to nature and extend of bend. Changes position of metal object either by turning or shifting it by hand or moving it to position by hoist for removing bend to required accuracy. Checks object by sight or with straight edge, scale or level to ensure that curves or bends are straightened to required accuracy. Removes straightened metal object from table with assistance of helpers or using hoisting equipment. May oil and clean machine. May do minor repairs to machine.

ISCO 08 Unit Group Details:

Code 7126

Title Plumbers and Pipe Fitters

7126.0500**Puncher, Metal**

Puncher, Metal punches, drills and countersinks holes in strip-plates, boiler frames and other metal parts by machine or hand tools. Studies drawings and other specifications to understand nature of punching operation required. Selects

proper size punch and screws it into upper jaw of machine. Hoists and places plate to be punched between die and punch. Aligns hole mark on metal part accurately under punch. Starts machine and releases foot pedal to cause punch descend through plate and cut hole over marked area. Changes position of metal and repeats punching operation. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 7126

Title Plumbers and Pipe Fitters

7126.0600**Pneumatic Chipper**

Pneumatic Chipper operates pneumatic chipper and removes excess metal and scrapings from metal products and fixtures such as castings, fixtures, girders, joints etc. Examines metal objects and other structural assemblies and marks areas with chalk requiring chipping of excess metal or burrs to give smooth finish. Connects air nozzle of pneumatic chipper to high pressure air supply pipe. Fits cutting chisel or tool to chuck or spindle or chipper as appropriate. Starts chipper to rotate chisel or cutting tool at high speed and chips off excess metal and burrs from castings, riveting points, joints, angles etc., by pressing it over marked area. Manipulates machine as necessary and observes metal getting smooth finish. Stops machine and examines chipped area for finish and accuracy by feel of hand or by using tools. Cleans and oils machine periodically.

ISCO 08 Unit Group Details:

Code 7126

Title Plumbers and Pipe Fitters

7126.9900

Plumbers and Pipe Fitters, Other

Plumbers and Pipe Fitters, other perform number of routine and low skilled tasks such as assisting in laying pipes, making water tight joints, fitting sockets and reducers, threading pipes with taps and dies, removing leakages, etc., and are designated as Plumber Mate or Pipe Fitter Helper according to type of work done.

ISCO 08 Unit Group Details:

Code 7126

Title Plumbers and Pipe Fitters

Family 7127

Air Conditioning and Refrigeration Mechanics

Air conditioning and refrigeration mechanics assemble, install, maintain and repair air conditioning and refrigeration systems and equipment.

7127.0100

Mechanic, Refrigeration and Air Conditioning

Mechanic Refrigeration and Air Conditioning Unit installs and repairs refrigeration or air conditioning plant by replacing defective parts, re-seating valves, refitting coils, insulated, requiring electrical connections, soldering etc. Installs at site assembled air conditioning unit and refrigerators giving necessary power connections and making changes to units as necessary to attain desired results. Examines faulty equipment to ascertain nature and location of defects. Dismantles equipment partly or completely according to nature of defects to remove damaged or worn out parts.

Replaces or repairs defective parts. Replaces or repairs defective parts to units by re-seating valves, refitting coils, reinsulating system, etc. over hauls units and reassembles them after cleaning components and replacing defective or worn out parts of pumps, compressors, motors, etc., Removes faulty sealed units or sub-units of refrigerators or air conditioning plants and obtains replacements. Conducts vacuum and pressure test of pipe lines and charges system with fresh refrigerant. Sets plant to desired cooling conditions, prevents leakage and ensures attainment and maintenance of required temperature. Gets burnt out motors or generators repaired by Electrician or Electrical Winder and installs repaired ones to plant giving necessary electrical connections. May work in ice factory, cold storage plants, specialized air conditioning units or domestic refrigerators.

ISCO 08 Unit Group Details:

Code 7127

Title Air Conditioning and Refrigeration Mechanics

Group 713

Painters, Builders, Structure Cleaners and Related Trades Workers

Painters, building structure cleaners and related trades workers prepare surfaces and apply paint and similar materials to buildings and other structures, vehicles or various manufactured articles. They cover interior walls and ceilings with wallpaper, clean chimneys and exterior surfaces of buildings and other structures.

Occupations in this Group are classified into the following Families:

7131 Painters and Related Workers
7132 Spray Painters and Varnishers
7133 Building Structure Cleaners

Family 7131 Painters and Related Workers

Painters and related workers prepare surfaces of buildings and other structures for painting, apply protective and decorative coats of paint or similar materials, or cover interior walls and ceilings of buildings with wallpaper or other finishes.

7131.0100 Painter, Building

Painter, Building; Painter, House applies coats of paint, varnish and other similar material to protect or decorate exterior and interior surface of buildings using spray gun, hand brush, etc. Selects paint materials. Mixes paints and matches colours by stirring together proper proportions of pigment, oil, thinner etc. and drying substances. Erects working scaffolding with bamboo poles and wooden planks or positions ladders at required height or places to be painted. Cleans surface packs, cracks and holes with mud fillers or mortar to prepare it for painting. Applies prime coat and allows it to dry. Brushes or sprays one or more coats of paint on surface to required finish. May finish and decorate surfaces with marble or brick and tile effects or by building silvering, stencilling etc.

ISCO 08 Unit Group Details:

Code 7131
Title Painters and Related Workers

7131.0101 Assistant Painter and Decorator

Assistant Painter and Decorator in this position need to work as semi-skilled category tradesman and perform tasks under instruction and close supervision of Painter and Decorator Level-3. He is expected to carry out shifting of materials, handling tools and tackles mixing of colours and paints. Including identification and surface preparation and housekeeping. He should ensure trade specific compliance to environment, health and safety aspects.

Qualification Pack Details:

QP NOS Reference CON/Q0502
QP NOS Name Assistant Painter
and Decorator
NSQF Level 2

ISCO 08 Unit Group Details:

Code 7131
Title Painters and Related Workers

7131.0200 Painter, Steel Structure

Painter, Steel Structure applies lead oxide, bituminous and other protective or decorative paints on steel framework of buildings, hangers, girders, bridges and other steel structures with hand brush or spray gun. Rigs up scaffolding, cradles, ladders and other equipment as necessary. Rubs and cleans metal surfaces to be painted with wire brush, coir or other abrasive material to provide clean smooth surface for painting. Stirs readymade paints in containers, mixes turpentine with it for thinning and applies it on metal surfaces with hand brush or spray gun as provided. May mix paint with linseed oil, colouring matter or other substances to obtain proper colour consistency. May burn off old paint with blow lamp and scrap surfaces before painting with sand paper.

ISCO 08 Unit Group Details:

Code 7131

Title Painters and Related Workers

7131.0300

Painter, Industrial

Painter, Industrial applies paint, varnish and similar materials to building and other structure. Chooses the right paint or finish for the surface to be covered taking in to account durability, ease of handling, method of application and customers' wishes. Prepares surface to be covered using scrappers, abrasives, and chemical removers so that paint adheres properly. Removes old coat by stripping, sanding, wire brushing, burning or watering and abrasive blasting. May wash surfaces and do trimming to remove dirt and grease from surfaces; fills holes and cracks; welds; sand-papers rough spots and brushes off dust. Applies primer on new surfaces for the finish coat. Mixes paint and matches colours by stirring together proper portions of pigments, oil, thinner etc. and other substances relying on knowledge of paint composition and colour harmony. Chooses the right paint applicator for each job, depending on the surface to be covered; characteristics of the finish and other factors. May use brush with soft tapered edge, or paint sprayer. Puts coating liquid in to spray gun tank, couples gun to air hose and adjusts air pressure valves and nozzles when working with sprayer.

ISCO 08 Unit Group Details:

Code 7131

Title Painters and Related Workers

7131.0500

Paper Hanger/Wallpaper Fixer/Decorator

Paper Hanger; Wall Paper Decorator cuts wall paper to proper lengths, applies glue paste on its back and covers walls and ceilings with them for decorative purposes. Selects wall paper of suitable colour, design and size and cuts it into suitable lengths. Erects scaffolding or positions ladder wherever necessary to reach surface to be decorated. Applies coat of glue on back of paper and pastes it on surface to be covered. Trims edges and runs hard rubber over painted paper to smoothen it. May apply sticking material on surface with roller or brush.

ISCO 08 Unit Group Details:

Code 7131

Title Painters and Related Workers

7131.9900

Painters and Related Workers, Other

Painters and Related Workers, other include those who prepare surfaces of buildings and other structures for painting, apply protective and decorative coats of paints or similar materials or cover interior walls and ceilings of buildings with wallpapers, silk or other fabrics not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7131

Title Painters and Related Workers

Family 7132

Spray Painters and Varnishers

Spray Painters and Varnishers operate spray painting and varnishing equipment

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

to apply protective coatings to manufactured items or structures.

7132.0100 Painter, General

Painter, General applies decorative or protective coats of paint, varnish, shellac, enamel, lacquer or other materials on exterior or interior surfaces, trimming and fixtures of glass, metal, wood, plaster concrete brick, building boards or other objects using brush, spray gun, roller, stencils etc. Receives work order and selects correct type of paint materials with the consideration to suitability, durability, ease of application and estimated cost. Mixes pigments, oils and other ingredients to material where required by manual or mechanical mixing device using paddle or electric mixer to obtain desired colour, shade and consistency. Removes dirt, grease or rough spots and irregularities by scrapers, chemicals and abrasives and patches cracks and holes with putty or other filler. Covers surface with appropriate prime coat or sealer to have suitable surface or base for paint. Brushes, sprays or stencils one or more coats of material on surfaces. May finish or decorate surfaces by gilding, silvering or painting over stencils. May be designated according to object coated or material used. May mix paint with linseed oil, colouring matter of materials, labour, etc. May erect scaffolds to facilitate work.

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.0201

Painter, Spray/Painting Technician (Spray Painting)

Painter Spray; Duco Painter applies decorative or protective materials such as paint, enamel or lacquer including synthetic paint on articles of wood, metal etc., using spray painting equipment. Selects and mixes paints to produce desired colour consistency, strains and puts coating liquid into spray-gun tank, couples gun to air-hose and adjusts air-pressure valves and nozzle. Presses trigger and directs spray of prime and finish coats of paint over surfaces and ensures smooth and even finish. Covers with tape areas not to be painted or where painting is to be done in second colouring. Cleans gun and hose with solvent before changing colour and on completion of work. May prepare surfaces for painting, using scrapers, abrasives, chemical removers or other means. May be designated according to article coated or material used.

Qualification Pack Details:

QP NOS Reference CSC/Q0702

QP NOS Name Painting Technician
(Spray Painting)

NSQF Level 2

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.0202

Auto Spray Painter/Painter

Painter prepares body surfaces on motor vehicles, and applies paint and other coatings.

Qualification Pack Details:

QP NOS Reference ASC/Q 1406

QP NOS Name Painter Level 4

NSQF Level 4

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7132

Title Spray Painters and Varnishers

7132.0203

Auto Body Painting Technician–Surface Treatment

Auto Body Painting Technician paints, does the touch up and inspection of the body. A Painting Technician does the final painting, touch up and inspection of the body of the vehicle being painted.

Qualification Pack Details:

QP NOS Reference	ASC/Q3303
QP NOS Name	Auto Body Painting Technician –L 3
NSQF Level	3

ISCO 08 Unit Group Details:

Code 7132
Title Spray Painters and Varnishers

7132.0204

Automotive Body Painting Technician

Automotive Body Painting Technician paints, does the touch up and inspection of the body. A Painting Technician does the final painting, touch up and inspection of the body of the vehicle being painted.

Qualification Pack Details:

QP NOS Reference	ASC/Q3304
QP NOS Name	Automotive Body Painting Technician –L4
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7132
Title Spray Painters and Varnishers

7132.0205

Auto Spray Painter Assistant/Painter

Painter prepares body surfaces on motor vehicles, and applies paint and other coatings.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1407
QP NOS Name	Painter Level 3
NSQF Level	3

ISCO 08 Unit Group Details:

Code 7132
Title Spray Painters and Varnishers

7132.0300

Metal Sprayer

Metal Sprayer controls portable flame spray equipment to spray corrosion-resistant coatings, such as zinc or aluminium, on objects, such as plates, tanks, and structural shapes according to specifications: Cleans and roughens surface of object to be coated, using sandblasting equipment. Selects nozzle to accommodate size of wire to be melted and sprayed and screws nozzle into place on metallizing gun. Inserts wire into rear of gun and through feed rollers and nozzle. Connects hoses from gun to air compressor and tanks of oxygen and fuel gas, such as acetylene. Turns knobs to synchronize speed of wire feed, air pressure, and flow of oxygen and fuel indicated on dials to specifications computed from data charts. Ignites gases to melt wire and presses button or trigger to release compressed air, which atomises and sprays molten metal onto work piece. Directs spray over surface of work piece in specified pattern to obtain coating of required thickness as indicated by electromagnetic gauge or amount of wire

used. May spray or brush paint or apply sealing material on coated surface for decoration or further protection. May flame-spray non-metallic objects, such as glass or plastics.

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.0400**Painter, Sign and Letter**

Painter, Sign or Letter; Letter Writer; Sign Writer plans, lays out and paints in one or more languages letters, signs, figures and monograms on wooden boards, metal plates, walls etc. using pencil brushes and palette. Prepares layout for sign writing, coats back-ground with paint, using paint brushes and allows it to dry. Sketches out lines with free hand in chalk or pencil or gets them marked by dusting on stencils. Mixes paints and pigments to get desired colour consistency and fills in marked out lines of letters and designs with paint using pencil brushes of various sizes. May make signs by cutting out and sticking gold lead lettering to surfaces. May cut stencils and paint signs by brushing and spraying paint over them. May make signs of metal or wood. May transfer designs and monograms and to gliding, silvering, graining etc.

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.0500**Painter, Brush**

Painter, Brush applies decorative or protective materials such as paint, enamel, varnish, lacquer etc., on metal

articles, wood, building boards and other materials using hand brush. Selects correct type of paint and brush, taking into consideration suitability, durability, ease of application and cost or mixes pigments, oils and other ingredients to paint material, as required, to obtain desired colour, shade and consistency. Cleans surfaces with brush, cloth or abrasive material. Removes dirt, grease or rough spots and irregularities by scrapers, chemicals etc. and patches cracks and holes with putty or filler to provide smooth clean surface. Rubs or covers surfaces with appropriate prime coat to have suitable base or surface for painting. Brushes with hand one or more coats of paint material on it to required finish. Cleans brushes on completion of work and maintains them. May be designated according to object painted or material used.

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.0600**Painter, Wood Work and Furniture**

Painter, Wood Work and Furniture polishes wood and applies decorative or protective coats of materials such as paints, enamel, varnish, lacquer etc., on pieces of furniture, mirror and picture frames, building fixtures and other types of wood work to desired shade and colour using hand brushes. Selects correct type of paint materials or mixes pigment, oils and other ingredients in proper proportions to obtain desired colour, shade and consistency. Prepares surface by scrapping with hand tools, rubbing with abrasive papers such as sand paper, steel wool or by applying chemicals to remove dirt, grease stains and old paint. Fills

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

cracks and holes with putty, honey wax or filler and smoothenes surface by rubbing with cloth, brush or abrasives. Covers surface with enamel, lacquer, paint, stain or varnish as required using hand brush and allows coat to dry. Applies wax or other polishing material with cloth and rubs it to shin finish. May paint decorative designs and mix finishing materials to get desired effect.

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.0700

Painter, Glass

Painter, Glass paints ornamental and decorative designs on window glass and other glass articles using paints of required colours and painting brushes. Studies design or ornamental features and draws free hand out lines in chalk, pencil or with special brush on glass planes or other glass wares to be painted. Paints on objects required design, using paints of different colour to match design or pattern. Paints details and shade on coloured glass previously waxed up according to original pattern to complete design of windows used in churches, memorials and residences utilising knowledge of art, portraiture and effect of light and shade on glass. Cleans brushes in oil or solvent after painting. May estimate cost of work. May paint walls, roof etc., of buildings. May stain back of painted glass pieces with silver chloride to achieve gold effect.

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.0900

Painter, Mate

Painter Mate; Painter Helper assists painters in their wok by performing routine tasks such as cleaning and preparing surfaces, mixing paints or colours under instructions, carrying tools and other equipment from one place to another, supplying material to painters and assisting them in their work. Cleans surfaces of object to be painted with brush, cloth or abrasive material and removes grease and dirt with chemical solvents, patches cracks and holes with putty or other filling and assists painter in his work by supplying paint, brushes etc. as required. Keeps brushes and other painting equipment clean. May do brush painting for ordinary purposes. May cover surfaces with appropriate prime coat to have suitable base for paint.

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.0901

Automotive Paint Shop Assistant

Automotive Paint Shop Assistant will be involved in BIW Inspection, loading of the body in the conveyor and processes of Sealing and sanding of the vehicle part.

Qualification Pack Details:

QP NOS Reference ASC/Q3302

QP NOS Name Automotive Paint
Shop Assistant

NSQF Level 2

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

7132.9900

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Varnishers and Related Workers, Other

Varnishers and Related Painters, other include all those who paint vehicles such as cars, buses or trucks, or apply protective coats of enamel or varnish on metal, wooden and other manufactured articles, usually with a hand-spraying device not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7132

Title Spray Painters and Varnishers

Family 7133

Building Structure Cleaners

Building structure cleaners clean exterior surfaces of buildings and other structures, and remove soot from chimneys.

Sub Division 72

Metal, Machinery and Related Trades Workers

Metal, machinery and related trades workers cast, weld, forge and, by other methods, form metal, erect, maintain and repair heavy metal structures, engage in machine-tool setting as well as in fitting, maintaining and repairing machinery, including engines, vehicles, or they produce tools and various non-precious-metal articles.

The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product

Tasks performed by workers in this sub-major group usually include: making moulds and cores for casting metal; casting, welding and shaping metal; installing, erecting, maintaining and repairing heavy metal structures, tackle and related equipment; forging and forming steel and other non-precious metals to make and repair machinery, tools, equipment and other articles; setting for operators or setting and operating various machine tools; fitting, maintaining and repairing industrial machinery, including engines and vehicles. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

721	Sheet and Structural Metal Workers, Moulders and Welders, and Related Workers
722	Blacksmiths, Tool Makers and Related Trades Workers
723	Machinery Mechanics and Repairers

Group 721

Sheet and Structural Metal Workers, Moulders and Welders, and Related Workers

Sheet and structural metal workers, moulders and welders, and related workers, make moulds and cores for casting metal, weld and cut metal parts, make and repair articles of sheet metal, and install, erect, maintain and repair heavy metal structures, tackle, cable-cars and related equipment.

Occupations in this Group are classified into the following Families:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7211	Metal Moulders and Core Makers
7212	Welders and Flame Cutters
7213	Sheet Metal Workers
7214	Structural Metal Preparers and Erectors
7215	Riggers and Cable Splicers

Family 7211

Metal Moulders and Core Makers

Metal Moulders and Coremakers make moulds and cores for casting metal.

7211.0100

Moulder, General

Moulder, General prepares mould from foundry sand using pattern for casting metal parts. Places pattern on mould plate (Wooden plate with arrangements to hold pattern). Makes mould in two halves (top and bottom) by ramming foundry sand around the pattern. Removes pattern carefully and mends two halves of mould by trowel and smoothers. Makes vent holes by wire for escape of gas and other holes on top box for pouring metal into mould and for escape of excess molten metal (runners and risers). Fixes dried cores in proper position to have designed holes in casting. May prepare bottom half of mould in floor instead of in bottom box. May dry moulds by fire in case of heavy castings. May do additions and alternations in mould from drawing, using foot rule, knife and trowel. May be known as PIPE MOULDER if engaged in pipe moulding.

ISCO 08 Unit Group Details:

Code 7211
Title Metal
Moulders and Core Makers

7211.0101

Press Shop Operator

Press Shop Operator is involved in operating the press machine, overseeing processes of blanking, drawing, etc., monitoring press operations and recording operational data, co-ordinating with die setter during die setting operation and assisting in running the press at optimum efficiency.

Qualification Pack Details:

QP NOS Reference	ASC/Q3402
QP NOS Name	Press Shop
Operator Level 4	
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7211
Title	Metal
Moulders and Core Makers	

7211.0102

Press Shop Assistant/Helper

Helper Press Shop role involves minor routine jobs like removing the scrap generated during the pressing operations (blanking, piercing, etc.), loading blanks and unloading of work pieces on the press line.

Qualification Pack Details:

QP NOS Reference	ASC/Q3401
QP NOS Name	Press Shop
	Assistant/Helper
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7211
Title	Metal Moulders and Core Makers

7211.0200

Moulder, Machine

Moulder, Machine makes moulds for use in forming molten metal into castings of various sizes, using auxiliary machines, patterns, hand tools and sand or loam. Places plate to which lower half of pattern is attached on machine table. Fixes frame having sides and cross-bars but no top or bottom to plate. Packs sand or loam around pattern. Fills frame with coarser material from chute or by shovelling, and operates machine to ram material. Turns frame over by hand or machine and dusts surface of sand with powder. Fits upper half of pattern to half and pins them together. Fixes another frame on top of frame. Positions channels through which molten metal will be poured and observed. Repeats packing, filling and ramming tasks and pierces holes to allow gases to escape during and after pouring. Loosens frames and turns top frame over and removes halves of pattern. Fits cores in place. Repairs damaged surfaces and treats all surfaces to prevent crumbling of molten metal. Re-joins frames. Shapes channel tops and fits bushes to protect them. May use only one frame and work as member of team in preparing top or bottom frames. May specialize in casting any particular type of metal and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7211
Title Metal Moulders and Core Makers

7211.0201**Casting Technician-Sand Moulding**

Casting Technician-Sand Moulding manages the specifications of the sand and molten metal, setting up and operating the casting equipment and forming and finishing the final output.

Qualification Pack Details:

QP NOS Reference	ASC/Q3205
QP NOS Name	Casting Technician-Sand Moulding
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7211
Title Metal Moulders and Core Makers

7211.0300**Moulder, Vertical Pipe**

Moulder, Vertical Pipe prepares mould for vertical casting heavy pipes. Sets bottom socket in moulding box (casing) by operating crane hoist. Gets ramming done, removes socket pattern and repairs mould after withdrawal of body pattern. Blackwashes mould and gets it dried up. Sets socket core at bottom and gets main and top core lowered and placed securely in concentric position. Is designated as TOP MOULDER or BOTTOM MOULDER according to location of work.

ISCO 08 Unit Group Details:

Code 7211
Title Metal Moulders and Core Makers

7211.0400**Rammer, Vertical Pipe Moulding**

Rammer, Vertical Pipe Moulding rams foundry sand around body pattern and sets core for preparation of vertical pipe moulds. Directs other workers in lowering and fitting it into bottom socket. Fills and rams foundry sand in casing around body pattern. Signals Crane Driver to lower spigot pattern on top; adjusts and sets pattern with help of gauges and completes ramming around spigot with pin rammers. Removes spigot and body patterns carefully.

ISCO 08 Unit Group Details:

Code 7211

Title Metal Moulders and Core Makers

7211.0500

Core Maker, Moulding (Hand)

Core Maker, Moulding (Hand) prepares cores with core sand (foundry sand mixed with some bonding agent such as molasses) for casting cavities in metal parts. Sprays ash, silica or other non-adhering powder on sides of core box, partially fills box with core sand, and inserts metal strengthening pins, wires (grid bars). Fills in and compacts more sand until core box is full. Makes vent holes in core with wire. Removes core from core box, mends it if necessary and places it in oven for drying. May apply plumbago mixed with molasses and water to obtain smooth finish on finished castings.

ISCO 08 Unit Group Details:

Code 7211

Title Metal Moulders and Core Makers

7211.0600

Core Maker, Vertical Pipe

Core maker, Vertical Pipe prepares cores for casting vertical pipes by repeated process of loam application. Applies splash loam uniformly on metal body and covers it with straw roll mechanically. Applies protective loam over it, gets it dried up in gas fixed stoves and mechanically revolves it against core board to get coating of fine loam. Sizes core by mechanically scrapping off extra material after drying. Cuts off bottom portion of core to prevent crushing during

operations. Repairs defects if any, applies thick coating of blackwash and gets it dried up again before use.

ISCO 08 Unit Group Details:

Code 7211

Title Metal Moulders and Core Makers

7211.9900

Metal Moulders and Core Makers, Other

Moulding and Core Making Operatives perform number of routine and low skilled tasks such as ramming foundry sand into mould by rammers (metal bars having flat and round bottom), setting body pattern with help of crane in centre of mould, fixing and removing of sockets for pipe castings, setting pullers for withdrawing machine castings, coating moulds with refractory or insulating powder, assisting in preparation of foundry sand, making bed for moulds, checking conditions of moulds, skimming dirt and slag from molten metal, cleaning and blackening trough, guiding and assisting Crane Driver in stripping castings from metal moulds, etc., and may be designated as Rammer, Socket Putter, Moulder Mates, Moulder Helpers, Pitman, Skimmer, Troughman, Stripper, etc.

ISCO 08 Unit Group Details:

Code 7211

Title Metal Moulders and Core Makers

Family 7212

Welders and Flame Cutters

Welders and flame cutters weld and cut metal parts using gas flame, electric arc

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and other sources of heat to melt and cut, or to melt and fuse metal.

7212.0100

Welder, Gas

Welder, Gas fuses metal parts together using welding rod and oxygen acetylene flame. Examines parts to be welded, cleans portion to be joined, holds them together by some suitable device and if necessary makes narrow groove to direct flow of molten metal to strengthen joint. Selects correct type and size of welding rod, nozzle etc. and tests welding, torch. Wears dark glasses and other protective devices while welding. Releases and regulates valves of oxygen and acetylene cylinders to control their flow into torch. Ignites torch and regulates flame gradually. Guides flame along joint and heats it to melting point, simultaneously melting welding rod and spreading molten metal along joint shape, size etc. and rectifies defects if any. May join part at various spots to prevent distortion of shape, form dimension etc. May preheat materials like cast iron prior to welding. May also weld by other gases such as argon coal etc.

ISCO 08 Unit Group Details:

Code 7212

Title Welders and Flame Cutters

7212.0101

Plumber (Welder)/Plumbing (Sanitary Fixtures) Fitter Assistant

Plumber (Welder) is responsible for welding activities related to plumbing works in housing, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference PSC/Q0105

QP NOS Name Plumber (Welder)

NSQF Level 3

ISCO 08 Unit Group Details:

Code 7212

Title Welders and Flame Cutters

7212.0102

Plumber (Welder) Assistant

Plumber (Welder) Assistant is responsible for assistance in welding activities related to plumbing works in housing, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference PSC/Q0103

QP NOS Name Plumber (Welder)
Assistant

NSQF Level 2

ISCO 08 Unit Group Details:

Code 7212

Title Welders and Flame Cutters

7212.0105

Iron and Steel (Tungsten Inert Gas Welder)

Iron and Steel (Tungsten Inert Gas Welder) performs manual TIG (GTAW) welding for a range of standard welding job requirements. This is for skilled welder who can weld different materials (carbon steel, aluminium, nickel, titanium, copper and stainless steel) in various positions and prepare various joints including corner, butt, fillet and tee. Set-up and prepare for operations interpreting the right information from the WPS.

Qualification Pack Details:

QP NOS Reference ISC/Q0807

QP NOS Name Iron & Steel
(Tungsten Inert Gas
Welder)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7212
Title Welders and Flame Cutters

7212.0111

Repair Welder

Repair Welder is responsible for maintaining and operating all welding related works. The individual must be able to use hand welding techniques or welding equipment and tools to join various metal components and also carry out repair work on machinery and equipment.

Qualification Pack Details:

QP NOS Reference ASC/Q1902
QP NOS Name Repair Welder
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7212
Title Welders and Flame Cutters

7212.0200

Welder, Electric

Welder, Electric Arc Welder fuses metals using arc-welding apparatus and electrodes (welding material). Examines parts to be welded, cleans them and sets joints together with clamps or any other suitable device. Starts generator or transformer (welding apparatus) and regulates current according to material and thickness of welding. Clamps one lead (insulated wire carrying current from generator) to part to be welded, selects required type of electrode and clamps it to holder connected with other lead). Generates sparks between electrode and joint, simultaneously guiding and

depositing melting electrode uniformly for welding. Takes precautionary measures such as wearing rubber gloves, holding welding screen or dark glass etc. May join parts first at various points for holding at specified angles, shape, form and dimension.

ISCO 08 Unit Group Details:

Code 7212
Title Welders and Flame Cutters

7212.0300

Welder, Machine

Welder, Machine operates gas or electric welding machine to joint metal parts by fusion. Sets machine for operation by igniting burners and adjusting flames or by switching on current. Regulates flow of gas or current and adjusts machine according to material to be welded. Checks cooling system and adjusts movement of conveyor, if any. Feeds material to be welded with either one by one or in batch according to type of machine and welds them by pressing paddle, or by automatic arrangements. May use fixtures or other suitable devices for mass production work. Is designated as SPOT WELDER, FLASH WELDER, etc. according to machine and type of work done.

ISCO 08 Unit Group Details:

Code 7212
Title Welders and Flame Cutters

7212.0301

Welder

Welder is also known as Welding Technician, this role is similar for all types of joining techniques like Gas Discharge Arc Welding (MIG, MAG, TIG), Resistance

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Welding (Spot Welding, Projection Welding, Butt Welding) and Automatic or Robotic Welding Process. This role is responsible for joining various types of metallic frames, structures, jigs, plates, sheets etc. using heating and melting process created through electrical power and gaseous discharge, maintaining process parameters, conducting quality checks on output product and maintaining a safe and healthy working environment on the shop floor.

Qualification Pack Details:

QP NOS Reference	ASC/Q3103
QP NOS Name	Welder Level 4
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7212
Title	Welders and Flame Cutters

7212.0302

Welding Technician

Welding Technician, this role is similar for all types of joining techniques like Gas Discharge Arc Welding (MIG, MAG, TIG), Resistance Welding (Spot Welding, Projection Welding, Butt Welding) and Automatic or Robotic Welding Process. This role is responsible for joining various types of metallic frames, structures, jigs, plates, sheets etc. using heating and melting process created through electrical power and gaseous discharge, maintaining process parameters, conducting quality checks on output product and maintaining a safe and healthy working environment on the shop floor.

Qualification Pack Details:

QP NOS Reference	ASC/Q3102
QP NOS Name	Welding Technician
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7212
Title	Welders and Flame Cutters

7212.0303

Gas Metal Arc Welder/Metal Inert Gas/Metal Active Gas/Gas Metal Arc Welder (MIG/MAG/GMAW)

Metal Inert Gas/Metal Active Gas/Gas Metal Arc Welder (MIG/MAG/GMAW) perform manual (semi-automatic) MIG/MAG (GMAW) welding for a range of standard welding job requirements and weld different materials (carbon steel, aluminium and stainless steel) in various positions. The welder can prepare various joints including corner, butt, fillet and tee. Set-up and prepare for operations interpreting the right information from the WPS.

Qualification Pack Details:

QP NOS Reference	CSC/Q0209
QP NOS Name	Metal Inert Gas/Metal Active Gas/Gas Metal Arc Welder (MIG/MAG/GMAW)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7212
Title	Welders and Flame Cutters

7212.0400

Gas Cutter

Gas Cutter; Flame Cutter cuts metal to required shape and size by gas flame either manually or by machine. Examines material to be cut and marks it according to instruction of specification. Mounts

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

template and sets machine to cut to specifications. Makes necessary connections and fits required size of nozzle or burner in welding torch. Releases and regulates flow of gas in nozzle or burner, ignites and adjusts flame. Guides flame by hand or machine along cutting line at required speed and cuts metal to required size. May use oxyacetylene or any other appropriate gas flame.

ISCO 08 Unit Group Details:

Code	7212
Title	Welders and Flame Cutters

7212.0402

Iron and Steel Plasma Cutter- Manual

Iron and Steel Plasma Cutter-Manual cuts different materials (mild carbon steel, stainless steel, aluminium, high tensile and special steels, and other materials) in various profiles. This involve setting-up and preparing operations interpreting the right information from the specification documents, obtaining the right consumables and other materials, etc.

Qualification Pack Details:

QP NOS Reference	ISC/Q0806
QP NOS Name	Iron & Steel Plasma Cutter
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7212
Title	Welders and Flame Cutters

7212.0500

Brazer

Brazer fuses metal parts by heating using flux and fillings. Cleans and fastens parts

to be joined face to face by wire, by seaming or by any other suitable means and prepares paste of flux and fillings. Applies it to joint and heats in furnace or by torch to melt filling into joint. Allows it to cool down. Examines joint and cleans them by filing, buffing etc.

ISCO 08 Unit Group Details:

Code	7212
Title	Welders and Flame Cutters

7212.0501

Soldering and Brazing Operator

Soldering and Brazing Operator is responsible for joining various types of metallic frames, structures, jigs, plates, sheets, wires etc. using heating and melting process created through electrical power and gaseous discharge, maintaining process parameters, conducting quality checks on output product and maintaining a safe and healthy working environment on the shop floor.

Qualification Pack Details:

QP NOS Reference	ASC/Q4201
QP NOS Name	Soldering and Brazing Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code
Title

7212.0600

Lead Burner

Lead Burner installs and repairs lead tanks, tank lining, pipes, floors and other fixtures and equipment of lead, using blow lamp and hand tools. Cuts section of sheet lead or pipe to size. Scrapes and levels edges of sections to be joined. Fits

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

section into place and fuses section together by moving flame of lamp along joints or by heating joints with lamp and adding lead from rod or ladle. Makes lead fittings and pipes by cutting, shaping and joining. May fuse, cut or make lead parts of storage battery, tanks, etc. by operating bad burning machine, or using oxyacetylene or oxyhydrogen torch.

ISCO 08 Unit Group Details:

Code 7212
Title Welders and Flame Cutters

7212.0700

Welder, Resistance

Welder, Resistance sets up and operates resistance welding machine to join metal parts, according to blueprints, work orders, or oral instructions. Turns machine dials to set air and hydraulic pressure, amperage, and joining time, according to specified type of metal, weld, and assembly. May select, install, and adjust electrodes. Aligns work pieces, using square and rule. May hold pieces together manually, fasten into jigs, or secure with clamps to align in specified assembly position. Holds part between electrodes or positions on machine worktable. Depresses pedal or pulls trigger to close electrodes and form weld at point of contact. Releases pedal or trigger after specified welding time. Cleans electrodes, using file, tip dresser, emery cloth. May operate machine which automatically releases electrodes from metal after welding cycle. May devise and build fixtures to hold pieces. May inspect finished work. May operate machine equipped with two or more electrodes which weld at several points simultaneously. Important variations include types of joints welded (seam,

spot, butt) and types of materials welded (aluminium, steel).

ISCO 08 Unit Group Details:

Code 7212
Title Welders and Flame Cutters

7212.0801

Welding Assistant

Welding Assistant, also known as Welding Helper is an assistant to the operator and the entire team, the helper supports peripheral activities/non-core activities in the manufacturing process. The Helper's role is involved in performing small time routine jobs like cleaning, washing, fetching and holding tool for the operators, loading and unloading of work pieces on the welding assembly, bringing raw material and spare parts from the stores etc.

Qualification Pack Details:

QP NOS Reference ASC/Q3101
QP NOS Name Welding Assistant
NSQF Level 2

ISCO 08 Unit Group Details:

Code 7212
Title Welders and Flame Cutters

7212.9900

Welders and Flame Cutters, Other

Welders and Flame Cutters, other perform number of routine and low skilled tasks such as cleaning joints, fitting electrodes, relieving welder and flame cutters in minor operations, fitting nozzle or burner, fitting templates etc. and is designated as Welder Helper, Gas Cutter Helper, etc.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7212
Title Welders and Flame Cutters
Family 7213
Sheet Metal Workers

Sheet metal workers make, install and repair articles and parts of articles made out of sheet metal such as sheet steel, copper, tin, brass, aluminium, zinc or galvanised iron.

7213.0101 **Sheet Metal Worker,** **General/Sheet Metal Worker –** **Hand Tools and Manually Operated** **Machines**

Sheet Metal Worker, General makes sheet metal articles according to drawing or sample. Studies drawing or sample and records measurements if necessary. Selects sheet of required type, thickness (gauge) and size and marks it with scribe, square, divider, foot rule etc., according to drawing or sample. Shears wherever necessary by machine or hand shears and makes it to required shape and size by bending, seaming, forming, riveting, soldering etc., using mallets, hammers, formers, sets, stakes, etc., or by various machines such as shearing, bending, beading, channelling, circle cutting. Checks work at stages during operations and does soldering, brazing as necessary. May undertake pneumatic and hydraulic tests. May also undertake repair work. May specialize in different metal sheets such as tin, copper, brass.

Qualification Pack Details:

QP NOS Reference CSC/Q0301
QP NOS Name Sheet Metal Worker
– Hand Tools and
Manually Operated
Machines

NSQF Level 2

ISCO 08 Unit Group Details:

Code 7213
Title Sheet Metal Workers

7213.0200 **Sheet Metal Worker, Structural**

Sheet Metal Worker, Structural assembles, alters and repairs prefabricated sheet metal sections according to specifications by various mechanical processes such as drilling, riveting, trimming, soldering etc. to form body structures of motor vehicles, aircraft, water tanks etc. Studies drawings and other specifications. Selects prefabricated metal sheet of required size, shape, form and thickness, measures them and marks outline and positions to indicate joints, bends etc. Punches or drills holes in metal sheets at marked points with hand or tools and joins various parts together by riveting, soldering, welding or with nuts and bolts. Bends metal sheet to required shape and covers it by joining it with frame at suitable places with nuts and bolts. Trims ends of bent metallic sheet by filing, sawing, bending etc. as appropriate. May install assembled body structure on frames for having wooden parts fitted to it. May heat and bend metallic parts of frame. May do spot welding.

ISCO 08 Unit Group Details:

Code 7213
Title Sheet Metal Workers

7213.0201 **Auto Engine Repair Technician**

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Auto Engine Repair Technician is responsible for the repair of vehicle engines and aggregates.

Qualification Pack Details:

QP NOS Reference	ASC/Q1409
QP NOS Name	Auto Engine Repair Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7213
Title	Sheet Metal Workers

7213.0301

Dent Remover/Auto Body Repair Technician/Denter

Dent Remover; Panel Beater removes dents from sheet metal parts such as mudguards, body panels, tanks, containers, trunks by beating with mallets, smoothens surface for painting and other operations. Gets parts dismantled, examines dents caused by stress or accidents and starts beating from highest point on inner side with mallet to bring it back to original shape. Supports outer surface with soft metal-piece, wood or broader mallet to avoid distortion in reverse direction. Manipulates support and uniformly beats inner portion till damaged portion is reformed to original shape. May engage an assistant to hold support and guide him in manipulating it. May also scrape or lightly file outer surface to remove further defects, if any, for obtaining finer finish.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1410
QP NOS Name	Auto Body Repair Technician/Denter
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7213
Title	Sheet Metal Workers

7213.0302

Auto Body Technician/Denter

Auto Body Technician is responsible for repair of vehicles and for carrying out work on the body and frame of a vehicle following the manufacturer's repair procedures.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1405
QP NOS Name	Auto Body Technician/Denter
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7213
Title	Sheet Metal Workers

7213.0400

Tinsmith/Whitesmith

Tinsmith makes and repairs cart-lamps. Containers, funnels, oil cans, siphons etc., from thin mild steel, galvanized or other sheets according to samples or instructions for commercial and domestic use. Measures sample with foot rule and callipers, selects required type of metal sheet, marks and cuts it accordingly with hand scissors. Develops sheet to required shape by beating and bending using mallet, rods, patterns, rails, stakes, etc., and solders joints as required. Secures joints by seaming or riveting and tests them for leakage. May be designated as COPPER-SMITH, BRASS-SMITH etc., according to material in which worked.

ISCO 08 Unit Group Details:

Code	7213
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Sheet Metal Workers

7213.0500

Tin Coater

Tin Coater; Kalaigare applies thin coating of tin on brass and copper utensils for domestic use. Makes small charcoal fire, cleans (degreases) utensils by scribbling with dry sand or any other such abrasive, heats up utensils on fire, sprinkles powdered ammonium chloride and tin stick or powdered tin on it, allows tin to melt and spreads melted tin over entire required surface with cotton or wool pad. Repeats and again rubs coated surface to ensure smooth finish.

ISCO 08 Unit Group Details:

Code 7213

Title Sheet Metal Workers

7213.0600

Machine Feeder and Off bearer

Machine Feeder and Off bearer feeds materials into or removes materials from machines or equipment that is automatic or tended by other workers. Feeds materials into machines and equipment to process and manufacture products. Off bears materials and products from machines and equipment, using hand tools. Cleans and maintains machinery, equipment, and work areas to ensure proper functioning and safe working conditions. Moves controls to start, stop, or adjust machinery and equipment. Modifies materials and products during manufacturing process to meet requirements. Records production and operational information and data on specified forms. Identifies and marks materials, products, and samples, following instructions. Weighs or measures materials or products to ensure

conformance to specifications. Inspects materials and products for defects and to ensure conformance to specifications. Fastens, packages, or stacks materials and products, using hand tools and fastening equipment.

ISCO 08 Unit Group Details:

Code 7213

Title Sheet Metal Workers

7213.9900

Sheet Metal Workers, Other

Sheet Metal Workers, Other perform number of routine and low skilled tasks, such as doing primary development of sheet metal, cutting sheets to sizes, assisting in operating sheet metal machines, applying brazing compound on joints to be brazed, heating rivets for assembly etc. and are designated as: Sheet Metal Helper if assists Sheet Metal Worker by performing simple flanging, punching, shearing soldering etc. for fabrication of sheet metal products, Tin Smith Helper if cuts tin sheets according to drawing or sample using foot rule, callipers and compass and assists Tin Smith in bending, shaping and joining various component parts. Sheet Metal Machine Helper if assists Sheet Metal Machine Operator in setting and operating sheet metal working machines such as bending machine, channelling machine, shearing machine etc.

ISCO 08 Unit Group Details:

Code 7213

Title Sheet Metal Workers

Family 7214

Structural Metal Preparers and Erectors

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Structural metal preparers and erectors assemble, erect and dismantle structural metal frames of buildings and other structures.

7214.0300

Boiler Fitter

Boiler Fitter sizes and fits various components and mountings to boilers and assists Boiler Maker in preparing boilers for steam and hydraulic tests. Marks components according to drawings and sizes them accurately by chipping, filing, drilling, reaming, tapping, scrapping etc. to required specifications, checking frequently with precision measuring instruments. Locates carefully position of different mountings such as regulator, super heater, header, pressure gauge, seating, safety valve by measuring instruments and gauges and fits them on boiler. Fits external water and lubrication pipes. Performs various duties as instructed by Boiler Maker such as cleaning of pipes, connecting pump, sealing etc. and assists him in preparing boiler for hydraulic and steam tests. May also undertake riveting, caulking, replacing of worn out and defective parts.

ISCO 08 Unit Group Details:

Code 7214

Title Structural Metal Preparers and Erectors

7214.0400

Tubesmith, Boiler

Tubesmith, Boiler forms, repairs and maintains boiler tubes, cuts tubes to required length, grinds surfaces, reams holes, expands or reduces ends and swages them as required. Repairs or

replaces defective or worn out tubes and tests for leakage by hydraulic pressure. May do descaling and cleaning of boiler tubes.

ISCO 08 Unit Group Details:

Code 7214

Title Structural Metal Preparers and Erectors

7214.0500

Boiler Maker

Boiler Maker makes layout of boiler from drawings, fits and assembles different parts, adjusts valves, prepares boiler for steam and hydraulic tests and undertakes repairs of boilers. Studies drawing, sets barrel of boiler in position, marks out locations and fits different units such as stays, flue tubes with super heater, header, thermo-siphon, injection and external pipes, fire grate, ash pan, smoke box tube plate, junction rings, etc. Repairs and replaces tubes, stays, grates etc. as and when required. Expands tubes and adjusts valves and other functional parts of boiler. Does riveting, caulking reaming, beading etc. as required by pneumatic, hydraulic and mechanical devices. Checks components, fittings, mountings etc. and prepares boiler for inspection at different stages and also for hydraulic and steam tests. May assemble tanks, vats and other heavy steel vessels with prefabricated parts. May also alter boiler parts and repair pumps, pipe lines etc.

ISCO 08 Unit Group Details:

Code 7214

Title Structural Metal Preparers and Erectors

7214.0600

Erector, Structural

Erector, Structural; Erection Fitter, Structural erects iron and steel framework at site for construction of buildings, bridges, chimneys, drilling rise, ropeways, etc., under guidance of structural Engineer. Examines drawings, site facilities and other specifications to determine kinds of lifting tackles, men, etc., required. Collects steel members such as truss, rafter, posts, etc., sets up hoisting equipment for raising and placing them and erects scaffolding. Aligns and bolts members in position for riveting. Drills, reams or enlarges holes and smoothens rough surfaces using pneumatic or electric tools, gets fabricated members slinged and lifted using lifting tackles, ropes, chains, crane etc. as necessary, structural steel places them according to specifications and joins them permanently in order of sequence to form completed structure or its frame work. May rivet or weld members together.

ISCO 08 Unit Group Details:

Code 7214
Title Structural Metal Preparers and Erectors

7214.0700

Fitter, Structural

Fitter Structural assembles and fits together various parts of heavy structures such as bridges, overhead cranes, hoists, ship etc. in workshop according to drawings under instructions of structural Engineer, and dismantles them for transporting to site for final construction. Examines drawings and other specifications. Checks parts to be fitted together. Cuts steel plates and angle iron using power shear or flame cutting equipment. Drills holes for bolts and rivets. Aligns members in position with

connecting pins to ensure that members fit together properly preparatory to permanent erection of structures at site. Checks alignment of members with spirit level, etc., to ensure accuracy of fit. Dismantles parts of assembled structures to facilitate transportation to site. May bend or otherwise shape plates and assemble structural members by fitting, forging, drilling, riveting, bolting, or welding.

ISCO 08 Unit Group Details:

Code 7214
Title Structural Metal Preparers and Erectors

7214.0800

Fitter, Construction

Fitter, Construction erects columns, trusses and general fabrication work at site for construction of buildings, heavy foundations, hangars, sheds, etc. under guidance of Civil Engineer or Overseer. Examines drawings and other specifications. Selects rods and cuts them to required length. Bends rods using hand tools or bending machine and joins them together with wires or fasteners. Places rods in forms and fixes them in position. May reinforce concrete with wire mesh.

ISCO 08 Unit Group Details:

Code 7214
Title Structural Metal Preparers and Erectors

7214.0900

Riveter

Riveter joins permanently metal parts, plates etc. with rivets either manually or by pneumatic or hydraulic machines. Selects correct size and type of rivets.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Ensures by sight or calculation that rivets are of correct length including allowances for riveting and cuts them if required, to correct length. Gets them heated up by Riveter Helper if necessary. Sets parts or plates in correct position, aligns holes and inserts rivets. Directs Dolly Man to hold dolly in position or holds it by suitable mechanical device and snaps other end to required shape by manual or mechanical process. Checks and ensures that rivets are not loose or bent and heads have been correctly formed. May detect faulty rivets, and drive them out after chipping or sawing riverheads. Reams rivet holes manually or by drilling machine, if necessary, and fixes new rivets. Is designated as CAULKER if engaged in caulking seams, stays, rivets etc. with caulking tools. May also do beading.

ISCO 08 Unit Group Details:

Code 7214
Title Structural Metal Preparers and Erectors

7214.1000 Riveter (Railroad Equipment)

Riveter (Railroad Equipment) rivets structural members, assemblies, and parts of railroad cars, using portable riveting, dimpling, and drilling machines and hand tools: Reads work orders, blueprints, and operation sheets to determine sequence of operations and type size and hole pattern of rivets. Removes temporary bolts or fasteners and inserts rivets in predrilled holes. Places drive head of rivet gun against rivet shank and pulls trigger to actuate hammer that spreads rivet, or spreads rivet, using rivet set and hammer. Rivets together adjoining edges of parts and assemblies, using portable rivet squeezer. Places two dies of rivet squeezer overhead and shank of rivet, and

presses trigger to activate dies that flatten shank of rivet. Drills and reams rivet holes and drills out defective rivets. Forms dimples around rivet holes, using portable dimpling gun or stationary dimpling machine. May align and assemble parts to be riveted, using jigs, holding fixtures, pins, clamps, and fasteners. May buck rivets.

ISCO 08 Unit Group Details:

Code 7214
Title Structural Metal Preparers and Erectors

7214.1101 Assistant Bar Bender and Fixer

Assistant Bar Bender and Fixer works as semi-skilled category tradesman and perform tasks under instruction and close supervision of Bar Bender and Fixer Level-3 as Assistant Bar Bender and Fixer. He is expected to read and understand drawings, Bar Bending schedule, fabricate, store, transport and place reinforcement in position while effectively engaging and supervising the Helper under him for all trade relevant tasks. He should ensure trade specific compliance to environment, health and safety aspects.

Qualification Pack Details:

QP NOS Reference CON/Q0202
QP NOS Name Assistant Bar
Bender and Fixer
NSQF Level 2

ISCO 08 Unit Group Details:

Code 7214
Title Structural Metal Preparers and Erectors

7214.9900 Structural Metal Prepares and Erectors, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Structural-metal Preparers and Erectors, other include workers who shape, assemble and erect heavy metal girders and plates to form structures and frameworks not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7214

Title Structural Metal Preparers and Erectors

Family 7215

Riggers and Cable Splicers

Riggers and cable splicers assemble rigging gear to move and position equipment and structural components, or install and maintain cables, ropes and wires on construction sites, buildings or other structures.

7215.0100

Rigger

Rigger erects lifting and hauling tackles, pulleys, wire ropes, etc. to lift, move or lower heavy articles such as girders, beams, roofing sheets, machinery, logs, etc. for building, erection, construction or similar purposes. Selects cables, ropes, pulleys, winches, blocks, and sheaves, according to weight and size of load to be moved; attaches pulley and blocks to fixed overhead structures, such as beams, ceilings and pole booms, with bolts and clamps; attaches load with grappling devices, such as loops, wires, ropes and chains, to crane hook; gives directions to Electric Bridge or Gantry Crane Operator or other Hoist Operator engaged in hoisting and moving loads to insure safety of workmen and material handled using hand signals, loud speaker, or telephone. May splice rope and wire cables to make

or repair slings and tackle. May direct workers engaged in hoisting machinery and equipment into ships and be designated MACHINERY ERECTOR (Ship and boat building and repair). When hoisting and moving construction machinery onto truck beds, may be designated as MACHINE MOVER (Construction).

ISCO 08 Unit Group Details:

Code 7215

Title Riggers and Cable Splicers

7215.0101

Rigger: Rigging of Heavy Material

Rigger: Rigging of Heavy Material selects tools and tackles, understanding and analysis of load distribution and lifting, moving (to be tied with manila rope to arrest lateral movement of loads safely as per needs of the group (Fitter, Welder etc.)

Qualification Pack Details:

QP NOS Reference	ISC/Q0817
QP NOS Name	Rigger: Rigging of Heavy Material
NSQF Level	3

ISCO 08 Unit Group Details:

Code 7215

Title Riggers and Cable Splicers

7215.0200

Slinger

Slinger Crane Hooker assists workers engaged in operating power shovels or cranes used to lift and move machinery equipment or materials such as concrete, castings, mill rolls, scrap metal, pipe, dirt and logs from one place to another. Affixes rope, cable, chain, sling or other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

grappling equipment or attachments to object being lifted or to lifting mechanism; places blocking or screw jacks in position to hold crane or shovel upright when lifting heavy loads; signals operator, vocally or with hand signals, to guide operator in lifting and moving loads when view from crane or shovel cab is obstructed; pushes or pulls load as it is lowered until it is deposited in desired place; removes grappling attachments or pulls lever crane or shovel with grease gun or oil can. May be designated according to equipment used, attachments made or area worked, as CONCRETE BUCKET HOOKER (CONSTRUCTION) LOG HOOKERS (SAWMILL), MAGNET PLACER (IRON AND STEEL).

ISCO 08 Unit Group Details:

Code 7215
Title Riggers and Cable Splicers

7215.0300 Splicer (Rope and Cables)

Splicer (Rope and Cables) joins, repairs or fits attachments to wire or hemp ropes or cables by splicing. Cuts parts of damaged cables; joins cables by opening up ends and interweaving strands, fits cables around hooks, eyes or other attachments and splices end of cable back into itself; binds joints and ends of cables. May be designated according to type of cables spliced.

ISCO 08 Unit Group Details:

Code 7215
Title Riggers and Cable Splicers

7215.9900 Riggers and Cable Splicers, Other

Riggers and Cable Splicers, Other include all other workers engaged in splicing cables and rigging and material handling equipment, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7215
Title Riggers and Cable Splicers

Group 722 Blacksmiths, Tool Makers and Related Trades Workers

Blacksmiths, Toolmakers and Related Trades Workers, hammer and forge bars, rods or ingots of iron, steel and other metals to make and repair various kinds of tools, equipment and other articles, set machine tools for operators or set and operate various machine tools, and polish and sharpen surfaces.

Occupations in this Group are classified into the following Families:

7221	Blacksmiths, Hammersmiths and Forging Press Workers
7222	Tool Makers and Related Workers
7223	Metal Working Machine Tool Setters and Operators
7224	Metal Polishers, Wheel Grinders and Tool Sharpeners

Family 7221 Blacksmiths, Hammersmiths and Forging Press Workers

Blacksmiths, Hammersmiths and forging press workers hammer and forge bars, rods, ingots and plates of iron, steel or other metals, and draw wire to make and repair various kinds of tools, metal

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

articles, pieces of equipment, and agricultural and related implements.

7221.0100

Blacksmith

Blacksmith; Lohar forges metal to required shape and size by processes of heating, bending, hammering etc. Heats metal in furnace to required degree of temperature. Places it on anvil holding it with tongs and forges it to required shape and size by hammering either themselves or by Hammerman. May use swages, sets from tools, jigs, etc. according to shape required. May weld by forging (joining two pieces with brass and borax by heating), and work by cold process. Is designated as ANGLESMITH OR SPRING SMITH if specialized in working on angle iron or in making springs.

ISCO 08 Unit Group Details:

Code 7221

Title Blacksmiths, Hammersmiths and Forging Press Workers

7221.0200

Village Blacksmith

Village Blacksmith forges domestic and agricultural articles, used in villages, by repeated heating and hammering. Examines sample for shape and size. Heats specified type and length of metal in furnace to required degree of temperature. Places and holds it on anvil with tongs and gets it hammered or hammers it to desired shape and size using sets, swages, etc. Punches holes by heating and hammering. Joins pieces of ferrous metal by forge-welding (heating two pieces of steel or iron and hammering them together). Heats articles frequently and checks it by sight or with scale,

callipers etc., while forging. May fit metal tyres on cart wheels. May do simple heat treatment operations. May also make articles according to instructions.

ISCO 08 Unit Group Details:

Code 7221

Title Blacksmiths, Hammersmiths and Forging Press Workers

7221.0300

Power Hammer Operator

Power Hammer Operator; Forging Machine Operator forges iron or steel to required dimensions by heating and hammering with power hammer. Heats metal red hot and adjusts it below hammer on anvil with tongs. Holds it firmly with tongs and operates hammer by paddle or signals to Lever Man to operate power hammer with required force and momentum. Turns sides of metal by tongs for hammering according to requirements. May heat or get metal heated number of times according to necessity. May finish article by striking it with a hand hammer.

ISCO 08 Unit Group Details:

Code 7221

Title Blacksmiths, Hammersmiths and Forging Press Workers

7221.0301

Forging Operator

Forging Operator manages the specifications of the metal bars, setting up and operating the machinery for forging and producing the output in line with the desired specifications.

Qualification Pack Details:

QP NOS Reference ASC/Q4501

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name Forging Operator
NSQF Level 4

Title Blacksmiths, Hammersmiths and
 Forging Press Workers

ISCO 08 Unit Group Details:

Code 7221
Title Blacksmiths, Hammersmiths and
 Forging Press Workers

7221.0400

Hammer Man

Hammerman; Striker hammers iron and steel to required dimension with sledges according to direction of Blacksmith. Selects sledge according to nature of forging and strikes hot metal hard or light as per direction of Blacksmith. May also work by cold process.

ISCO 08 Unit Group Details:

Code 7221
Title Blacksmiths, Hammersmiths and
 Forging Press Workers

7221.0500

Stamper/Forging Operator

Stamper; Drop Forger shapes articles from metal pieces by using dies and drop forging or stamping machine. Sets required die and punch securely in machine, heats metal to red hot and firmly places it on die holding it with long tongs. Signals Stamper, Helper to bring punch down with force. Checks formation by sight and adjusts position of material every time before strike. Applies oil, saw dust or powdered coal on die before stamping. May reheat and handle more than one set of die for completing article. May also work by cold process in case of hammer dies and metal sheets.

ISCO 08 Unit Group Details:

Code 7221

7221.0600

Farrier

Farrier fits iron shoes to hoofs of animals such as bullocks, horses, etc., to protect them from injury and excessive wear and tear. Removes old shoes and nails from hoofs of animals and dresses them (hoofs) by mending and filing. Selects shoes of required size, rectifies defects if any, and fits them in hoofs with special types of nails. Ensures that shoes are not loose and animal does not get injured in process of fitting shoes. Ties and immobilises animal before fitting shoes if necessary. May also make shoes by common blacksmithy process.

ISCO 08 Unit Group Details:

Code 7221
Title Blacksmiths, Hammersmiths and
 Forging Press Workers

7221.0700

Wire Drawer/Wire Drawing Machine Operator

Wire Drawer; Block Stripper, Metal Drawing draws wire through dies to required specification by operating wire drawing machine. Selects required die and fits it in die box. Sets height and alignment of block. Points one end of wire, feed it into die, starts machine and watches drawing and coiling at other end. Rectifies defects in case of faulty drawing or breakage.

ISCO 08 Unit Group Details:

Code 7221
Title Blacksmiths, Hammersmiths and
 Forging Press Workers

7221.0800

Metal Spinner/Metal spinning Machine Operator

Metal Spinner; Spinning Lathe Operator fashions metal sheet on spinning lathe into hollow-ware, utensils, and fancy articles using patterns and spinning tools studies drawings and other specifications of article to be made. Selects appropriate mandrels. Wooden chuck or mould to make article. Fastens mould to spindle or lathe. Measures, marks, and cuts discs from sheet metal stock and drills hole in each disc using marking devices, shear and drill press. Clamps disc to spinning form mounted on head stock spindle of lathe by forcing follow block against disc with tail stock (movable part of lathe). Starts machine. Coats outside of rotating disc, forcing it to shape of spinning form, removes completed article from lathe and repeats process. Smoothens and trims spun piece with hand tools. May oil and clean machine. May work on wood turning lathe and make wooden chucks or moulds. May cut and prepare appropriate sizes of metal blanks on machine for use of spinning lathe. May be designated as ALUMINIUM SPINNER, BRASS SPINNER, and COPPER SPINNER, according to type of metal handled.

ISCO 08 Unit Group Details:

Code 7221

Title Blacksmiths, Hammersmiths and Forging Press Workers

7221.9900

Blacksmiths, Hammersmiths and Forging Press Workers, Other

Blacksmiths, Hammer-smiths and Forging-press Workers, other perform variety of routine and low skilled tasks not

elsewhere classified, in smithy section such as operating levers of power hammer, pulling string of drop forging machine, assisting Forging Machine Operator in placing material on anvil or carrying it off and are designated according to nature of work done such as Lever Man, Stamper Helper, Blacksmith Helper, etc.

ISCO 08 Unit Group Details:

Code 7221

Title Blacksmiths, Hammersmiths and Forging Press Workers

Family 7222

Tool Makers and Related Workers

Toolmakers and related workers make and repair custom made and specialized tools, sports guns, locks, dies, patterns machinery components and other metal articles using hand and machine tools to work metal to fine tolerances.

7222.0100

Marker, Metal

Marker Metal; Layout Man marks metal according to drawing or sample for filing, machining, grinding, drilling, forming, erecting, etc. Studies drawings, sketches, samples, etc., to determine nature of work. Selects metal such as sheet, blocks, angles, rods, etc. according to requirement and specification and applies chalk or copper sulphate solution on finished surface. Calculates and marks outline with centre punch marks on finished surface of metal, indicating lines, curves or points as per dimensions and other specifications given in drawing for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

fitting, cutting, grinding, drilling, developing, etc., using surface plate, angle plates, Vernier height gauge, divider, marking block and other devices. Checks markings by calculating dimensions to ensure accuracy of size, distances etc., using scales, divider, square and other tools. May use template for making standard sizes of metal products. May mark metal components with drawing numbers for final assembly and erection. May be designated as SHEET METAL MARKER, STRUCTURAL MARKER, TOOL ROOM MARKER, MACHINE SHOP MARKER, etc., according to shop and nature of work done.

ISCO 08 Unit Group Details:

Code 7222

Title Tool Makers and Related Workers

7222.0200

Tool Maker

Tool Maker makes cutting and press tools, gauges, simple jigs, fixtures, etc. mainly for use in machines. Studies drawings, samples and other specifications of tool or gauge to be made. Selects required type of metal or alloy and marks it for various operations, using Vernier height gauges, sine plate, vee blocks, etc. Cuts, files, grinds, scrapes or otherwise shapes metal to specified dimensions frequently checking it while working with measuring instruments such as micrometre, Vernier, gauges, face plate etc. as necessary. Anneals, shapes, hardens and tempers cutting tools ensuring correct cutting angles, clearances, etc. according to standard or prescribed specifications. Assembles part, finishes object. Checks accuracy with precision measuring instruments and shadow graph if necessary to ensure desired performance. Calibrates and adjusts tools and gauges

where required and maintains them in good working order. Guides brazing of tips to stalks and finishes them to make tip tools. Is designated as GAUGE MAKER if engaged in making or reconditioning gauges. May repair and recondition tools for further use. May design tools, jigs and fixtures and braze and weld metal parts.

ISCO 08 Unit Group Details:

Code 7222

Title Tool Makers and Related Workers

7222.0300

Jig and Fixture Marker

Jig and Fixture Maker makes and repairs jigs and fixtures (device for holding metal and guiding cutting tools) for mass production work. Studies drawing and checks dimensions and other specifications of sample to calculate working details. Collects material, gets surfaces finished by filing or machining and marks them off. Makes different parts of required jig or fixture by cutting, filing, machining, grinding, scraping, drilling, screwing, etc. and finishes them to required dimensions. Hardens and tempers necessary parts or gets them done ensuring that they do not get demored. Assembles parts in proper sequence, fits hardened bushes or parts where specified to guide cutting tools and checks easy fixing and removing of part to be machined to ensure operational efficiency of jig or fixture made. Checks fitting of jig and fixture at each stage while assembling to conform to specifications. Tests completed jig or fixture by trial operations to ensure operational efficiency and accuracy in production work. May make adaptors, pullers etc. for specific purposes. May machine and grind jig and fixture parts.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7222

Title Tool Makers and Related Workers

7222.0400

Jig Borer

Jig Borer; Jig Boring Machine Operator sets and operates precision jig boring machine for making highly accurate holes in jigs, fixtures, castings, etc. Studies drawings and other specifications and calculates locations and sizes of holes to be drilled, pitch centre distances, etc. Marks or gets metal or object marked accurately to indicate exact position of holes to be bored. Sets machine table and fastens metal or object on it in perfect level and correct alignment with clamps, fixtures, jigs, etc., using dial indicators, slip gauges, optical scale of machine if provided, sine bars and other precision devices. Fits centring tool in chuck in machine spindle. Moves table across and sideways according to machine reading, locks movements of machine table taking bearing from finished side of metal or object, lowers spindle to bring centring tool exactly over centre of hole to be drilled, notes table readings, starts machine and drills hole centre. Raises spindle, replaces centring tool with pilot drill, sets machine feed and speed, operates machine spindle and drills, pilot hole. Changes pilot drill with slightly less than hole size drill. Drills metal or object and checks hole with plug gauge for alignment, angle, size, etc. Fixes dead size (exactly of size of hole to be made) reamer or boring tool in machine spindle. Sets feed and speed as necessary and bores hole to finished size ensuring absolute accuracy of hole made. Stops and starts machine and keeps coolant on as required while working. Unlocks table movement, moves table sideways and across according to calculated pitch centre

distances of holes, taking bearing from hole drilled and drills other holes in similar manner. May drill more than one hole in same surface in one setting. May grind tools and oil and clean machine.

ISCO 08 Unit Group Details:

Code 7222

Title Tool Makers and Related Workers

7222.0500

Die Maker

Die Maker; Die Fitter; Press Tool Fitter makes metal dies to prescribed dimension for punching, cutting, forging and forming of metal or synthetic components for mass production. Studies drawing and specifications of dies to be made. Selects required type of metal or rough cast metal block. Machines or grinds one surface and marks it with template or otherwise to indicate dimensions and other working details. Cuts shapes, drill holes and mills metal according to marking on various machines. Checks dimensions while working with gauges and other measuring tools. Finishes made die (punch) by filing to required dimension and fits female to it. Files cutting angle and clearance accurately in female die and checks for sizes. Drills holes and cuts thread in female die for driving guide pin and fitting guide plates. Gets male and female dies tempered and grinds them to finish ensuring correct shear, cutting angle, clearances, etc. Sets finished dies in press and cuts or forms some trial pieces to ensure accuracy and correct production. May shape female die block to required angle for fitting it in bolster. May repair used dies and grind them to desired finish. May operate lathe, milling and shaping machines and harden and temper dies.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7222

Title Tool Makers and Related Workers

7222.0600

Die Sinker, Hand

Die Sinker, Hand makes metal dies in two halves for manufacture of metal and synthetic components using fine chisels, hand tools, machine, etc. Studies samples or drawings of dies to be made. Selects right type of metal or alloy rough cast blocks. Gets one surface of each block ground finished. Marks one block to indicate position, size and shape of die to be cut. Follows marking and removes metal with different types of chisels, scrapers, etc. to form one half of die to be made. Measures amount of metal removed frequently while working with depth gauge, template, foot rule etc. to ensure correct forming. Transfers markings to other die block and (forms) and shapes it in similar manner to form other half of die. Takes lead casting of complete die formed and measures it (casting) with callipers, micrometre, etc. for dimensions. Makes alterations in die halves if required checks with further lead castings and ensures that product formed conforms to prescribed specifications. Gets die halves tempered and finishes them by grinding. Sets them in machine and stamps or forges some trial pieces to ensure correct formation. May anneal, grind and sink dies again if necessary. May do primary sinking of dies in vertical milling machine.

ISCO 08 Unit Group Details:

Code 7222

Title Tool Makers and Related Workers

7222.0700

Locksmith

Locksmith fits assembles and repairs locks with finished parts by accurately sizing components, setting levers riveting etc. studies design, sketch or model of lock to be made. Collects various finished components or parts and checks for accuracy of fit by supplementary tooling to remove defects. Assembles and fits parts in frame and rivets body to make complete lock. Tests completed lock for locking and unlocking with appropriate key. Dismantles defective locks, repairs or replaces damaged parts and sets them right by setting or filing levers, riveting etc. Opens jammed locks using special scriber to release levers and springs. May install locks. May make parts of locks by hand.

ISCO 08 Unit Group Details:

Code 7222

Title Tool Makers and Related Workers

7222.0800

Pattern Marker, Metal Foundry

Pattern Maker Metal, Foundry makes and repairs metal patterns for making moulds for casting metals. Studies drawings and other specification of pattern to be made and calculates shrinkage allowances. Takes metal cast roughly to shape or selects metal from stock and marks it off. Grinds, smoothens and other wise shapes metal to required dimensions keeping shrinkage allowances in view. Measures object (pattern) frequently while working with callipers, foot rule, gauges etc. to ensure correct shape and size. Assembles pattern parts by screwing, soldering or otherwise fixing them together. Checks completed pattern for accuracy using gauges, micrometre, callipers, etc. and makes alterations if necessary. May repair broken or damaged patterns.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 7222

Title Tool Makers and Related Workers

7222.0900

Armourer

Armourer; Gunsmith; Fitter Arms assembles, replaces parts and repairs guns, rifles, pistols etc. by further tooling as necessary. Checks complete small arm (gun, rifle, pistol etc.) or its components such as stock, barrel, sight, trigger mechanism, firing pins, ejector etc. for alignment, proper fittings, grooving, functional operations, condition and serviceability and locates defects if any. Dismantles complete arm or defective portion as necessary and removes dents and defects by further tooling, brazing etc. or by replacement of broken or worn out parts. Selects seasoned walnut, shisam or any other type of appropriate timber, marks it and makes butt of respective small arms, if defective, in correct alignment with sights and barrel by various carpentry processes. Removes rust if any and cleans barrel and other parts thoroughly. Assembles parts one by one in order of sequence with hand tools ensuring stipulated performance, correct setting, alignment, rigidity etc. sets back and fore sights in perfect alignment with muzzle and stock for different ranges of shooting and adjusts it correctly by trial shooting at firing range. Scrapes and polishes outer surface of barrel, trigger, trigger guard etc. and colours it by hot or cold gun bluing process. May personally test arms by trial firing at range to observe performance and accuracy.

ISCO 08 Unit Group Details:

Code 7222

Title Tool Makers and Related Workers

7222.9900

Tool Makers and Related Workers, Other

Toolmakers and Related Workers, other include all other Tool Makers engaged in making special or other types of tools such as fly cutters, capstan, from tools, etc., by performing one or more combination of tasks, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7222

Title Tool Makers and Related Workers

Family 7223

Metal Working Machine Tool Setters and Operators

Metal Working Machine Tool Setters and Operators set and/or operate, various machine tools working to fine tolerances.

7223.0100

Tool Setter, General

Tool Setter, General sets various types of precision metal cutting and grinding machines for Machine Operators. Studies drawings and other specifications of parts to be made. Fixes metal and cutting tool accurately in position on machine using chucks, jigs and other fixtures as required. Adjusts machine table, guides, stops and other controls by manual operations ensures that tool will cut or grind metal according to specifications. Starts and operates machine to cut or grind sample product. Checks progress and accuracy of cutting or grinding with precision measuring instruments such as micrometre, Vernier, gauges, etc. and makes necessary adjustments to ensure accuracy of final product and hands

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machine over to operator for production. Charges tools and resets machine as necessary. May be designated as BROACHING MACHINE SETTER; MILLING MACHINE SETTER; PROFILING MACHINE SETTER; SHAPING MACHINE SETTER; SETTER LATHE, etc. according to type of machine set. May do minor repairs to machine. May supervise work of machine operators.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.0200

Tool Setter, Press

Tool Setter, Press sets press tools (die and punch) in power and hand press for manufacture of sheet metal products. Examines sample or studies drawings and specifications of item for production. Selects appropriate pair of die and punch and examines them for sharpness, cutting angle, clearance, etc. Fits punch in punch holder of machine and securely screws it in position. Places die on machine table and lowers punch to fit in die. Adjusts position of die in relation to punch. Clamps die securely on machine table with holders, plates, bolts and nuts and manually operate punch few times to ensure that it passes clearly through die set. Starts machine and feeds metal to cut or form trial pieces. Examines them for correctness in all respects, resets die if necessary, and hands press over to operator for production work. May grind press tools on surface grinder. May fit guide pin in die to avoid wastage of material. May fit die in bolster (holding device) before setting. May supervise operators.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.0300

Setter, Drop Forging Machine

Setter, Drop Forging Machine; Drop Forge Setter sets dies in forging machine for blacksmithy work to cut or form heated metal parts to desired shape. Studies drawing or part to be made and selects required pair of dies. Fits top die securely in sliding hammer head of machine and places bottom die on anvil (base platform of machine). Lowers top die by lever or otherwise slowly on bottom die and adjusts position of bottom die in relation to top die to have equal clearance on all sides. Sets bottom die securely on anvil with bolts, clamps, nuts, plates, etc. and checks for correct setting. Heats or gets blank or material heated to required temperature and forges some (two or three) trial pieces to ensure correct production and minimum wastage of material. Resets dies if necessary and hands forge (machine) over to operator with necessary instructions. May set rope or belting to lifting device of hammer head. May be designated as DROP HAMMER SETTER, PNEUMATIC HAMMER SETTER, STEAM HAMMER SETTER etc. according to type of hammer or forging machine set.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.0400

Setter, Automatic Machine

Setter Automatic Machine sets various types of precision metal cutting tools in automatic machines for specific repetitive operations for mass production of metal articles or components. Studies drawings and other specifications of metal parts or articles to be made. Selects appropriate tools and securely fixes them in automatic machines in order of sequence of operations. Fastens metal accurately in position in machine using chuck, jig or fixture as required. Starts machine. Operates different tools manually in order of sequence to cut metal to required specifications. Checks metal frequently while cutting with precision measuring instruments to ensure accuracy and regulates feed of metal, travel and movement of tools, etc. by setting locking devices, guides, automatic and other controls after each completed operation. Cuts trial piece according to settings done to check accuracy of each operation and cutting of metal to prescribed dimensions. Resets controls, guides, etc. where necessary to ensure accuracy. Sets machine feed and speed, adjusts flow of coolant and hands over machine to operator with required instructions for tool manipulations and operations as necessary. Visits machines under his charge frequently, checks production and ensures that products of each machine are interchangeable and are manufactured to required specifications. Guides and resets tools where necessary. May develop and form new tools for specific operations and harden and temper them. May suggest form and type of jig and fixture required.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool Setters and Operators

**7223.0401
Assembly Line Machine Setter**

Assembly Line Machine Setter oversees assembly operation as per the required norms and assembly of aggregates in the vehicles and includes controls for machine operation, temperature and pressure including all machine settings.

Qualification Pack Details:

QP NOS Reference	ASC/Q3603
QP NOS Name	Assembly Line Machine Setter
NSQF Level	6

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool Setters and Operators

**7223.0500
Mechanist, General/Machinist**

Machinist General operates various types of power driven metal cutting or grinding machines for cutting and grinding metal. Studies drawings or measures out sample with appropriate measuring instruments to note different dimensions and sequence of operations required. Selects metal piece and marks it or gets it marked for machining operations required. Fastens metal in chuck, jig or other fixture and respective tool or cutter, according to sequence of operation, on appropriate machine. Checks machine setting or sets it for stipulated machine operations. Selects machine feed and speed and starts machine. Controls flow of coolant (cutting lubricant) and manipulates hand wheels or applies automatic controls to feed tool to metal or metal to tool. Observes cutting or grinding both from marking and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machine readings, checks for dimensions as necessary and removes parts when machining is completed, checks completed part with measuring instruments and gauges to ensure prescribed accuracy. Makes adjustments if necessary and repeats operations, as required, on same or other machines. May assist in setting up machine for repetitive work, change tools, make simple adjustments, clean and oil machine.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.0501 **Machine Shop Master** **Technician/Setter**

Machine Shop Master Technician/Setter sets parameters and programming of CNC and other machining equipment's, supervision of operations for different machine tools performed both manually and through automatic/CNC machines/robots. This role primarily involves setting machine parameters, supervising all kinds of machining and in-line inspection activities for quality verification, resolving line operation issues, ensuring compliance to all super finishing, tool room operations etc.

Qualification Pack Details:

QP NOS Reference	ASC/Q3506
QP NOS Name	Machine Shop Master Technician/Setter
NSQF Level	6

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.0502 **Machine Shop Supervisor**

Machining Supervisor role covers supervision of operations for different machine tools performed both manually and through automatic/CNC machines/robots. This role primarily involves supervising all kinds of machining and in-line inspection activities for quality verification, resolving line operation issues, review of fixtures etc.

Qualification Pack Details:

QP NOS Reference	ASC/Q3505
QP NOS Name	Machine Shop Supervisor
NSQF Level	5

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.0601 **Turner/Conventional Turning**

Turner; Lathe Operator makes metal articles to required specifications using lathe and cutting tools. Studies drawings and other specifications of parts to be made. Selects metal, holds it in chuck, jig or fixture on lathe as required, centres it by manipulating chuck jaws or otherwise using dial indicator or marking block and securely tightens it in position. Selects correct cutting tool, grinds it if necessary and holds it tight in tool post at correct height. Sets feed and speed and starts machine. Manipulates hand wheels or starts automatic controls to guide cutting tool into or along metal. Controls flow of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

coolant (cutting lubricant) on edge of tool. Arranges gears in machine to obtain required pitch for screw cutting. Calculates tapers and sets machine for taper turning, controls lathe during operation by means of hand wheels and levers and frequently checks progress of cutting with measuring instruments such as callipers and rule, micrometres, etc. Stops machine, removes completed part and checks it further with instruments to ensure accuracy. Repeats operations if necessary. Cleans and oils machine. Is designated as ROLL TURNER; RELIEVING LATHE OPERATOR; SURFACE LATHE OPERATOR etc. according to type of lathe on which worked. May improvise devices and make simple adjustments to machine. May recondition lathe tools.

Qualification Pack Details:

QP NOS Reference	CSC/Q0110
QP NOS Name	Conventional Turning
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7223
Title	Metal Working Machine Tool Setters and Operators

7223.0700

Turret and Capstan Lathe Operator

Turret and Capstan Lathe Operator operates turret or capstan lathe for mass production of metal components. Studies specifications of parts to be fashioned. Checks tools set in order of sequence of operations in appropriate parts of turret. Clamps work piece accurately in position on lathe using chuck, collets, fixtures or other device as required. Checks guides and stops set by Tool Setter or by self to limit or control movement of tools. Selects rotation speed of metal as guided

and starts machine. Manipulates hand wheels or sets and starts automatic controls to guide each cutting tool in turn in order of sequence into or along metal. Controls flow of cutting lubricant to tool tips. Observes cutting operation by different tools. Stops machine after each operation and checks machining with gauges and measuring instruments and makes necessary adjustments if necessary to ensure accuracy. Is designated as WARD OPERATOR, if engaged in operating ward machine (a type of automatic lathe). May shape and sharpen lathe tools. May oil and grease machine.

ISCO 08 Unit Group Details:

Code	7223
Title	Metal Working Machine Tool Setters and Operators

7223.0701

Lathe Machinist

Lathe Operator is also known as a Lathe Machinist. A Lathe Operator is responsible for setting up, operating and monitoring lathe or turning machines, shaping or threading wire, rod or bar stock. A Lathe Operator studies blueprints and tooling instructions to determine the correct procedure for machining the component in such a manner that facilitates maximum efficiency in tool usage and time. The operator also performs machine maintenance and checks tools for signs of wear.

Qualification Pack Details:

QP NOS Reference	ASC/Q1901
QP NOS Name	Lathe Operator
NSQF Level	4

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.0800

Shaper

Shaper; Shaping Machine Operator shapes metal objects to required specifications using shaping machine and cutting tools. Examines drawings and other specifications of part to be made. Fastens metal accurately in position in vice. Selects appropriate cutting tool and fixes it in tool holder on machine. Sets appropriate speed feed and stroke of machine depending on nature of required cut, type of metal etc. Adjusts machine table and tool post by manipulating levers or controls. Starts machine. Turns hand-wheel to feed cutting tool into or across work or engages automatic feed. Checks progress of cutting with measuring instruments and makes necessary adjustments to ensure accuracy. Stops machine when completed and removes work from it. May sharpen and make own tools. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.0900

Planer

Planer sets and operates single or double column smoothening machine to shape metal objects to required dimensions. Studies drawings and specifications for setting work piece and tools for different operations involved. Fastens metal object accurately in position on machine table with bolts, nuts and other fixtures. Selects single or double faced tool and fixes it in

tool holder of machine. Adjusts guides, stop and other controls to set speed and limits of forward and backward movements of machine table. Starts machine. Turns hand wheels to bring cutting tool position over metal to start machining. Manipulates hand-wheels or starts automatic controls to guide tool into and across metal at end of each stroke. Changes tool and position of metal if required. Checks and measures work to ensure correct dimensions. Adjusts position of table or tool as necessary for accurate performance. May oil machine. May specialize in any particular type of planning and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.1000

Planer, Edge

Planer, Edge planes edges of heavy metal plate, girders etc. for structural work using appropriate cutting tools and edge shaping machine. Fastens plates, angles and other metal objects accurately in position on machine table using fixtures, bolts and nuts. Selects appropriate cutting tool and clamps to machine spindle. Selects and sets speed and feed of machine depending on nature of machine operation and metal used. Starts machine. Lowers spindle of machine with cutting tool over metal to plane or cut edges. Regulates flow of cutting lubricant over edge of tool where necessary. Finishes edges of metal to required finish or smoothness by changing shaping or grinding tools in machine. Checks finished metal with measuring instruments and gauges for accuracy. May oil and clean machine. May sharpen machine tools.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

May specialize in particular type of planing and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.1100

Slotter

Slotter; Slotting Machine Operator sets and operates slotting machine to cut slots keyways etc. in metal work pieces. Examines drawings and other specifications for type and size of slots and keyways to be cut on metal objects. Fastens metal object accurately in position on machine table with bolts, clamps and other fixtures. Selects cutting tool and fixes it in tool holder of machine. Adjusts guides, stops and other controls to set stroke and speed of tool movement. Adjusts table and sets work piece correctly for cutting operations. Starts machine and applies cut. Observes progress of cutting. Stops machine and checks slotted or grooved area for accuracy of depth and width using measuring instruments. Cleans and oils machine. May assist in setting up machine, and make simple adjustments. May recondition and sharpen tools.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.1201

Miller/Operator–Conventional Milling

Miller cuts metal blocks, gears, tools, cutters, jigs, components, etc. accurately

according to drawings or samples by means of multi-toothed rotary cutters on milling machine. Studies drawings and other specifications of part to be made. Calculates feed, speed table, cutter and work angles, indexing, gear trains, number and type of cutter required, etc. using trigonometrical and log tables as necessary. Fastens blank (object) securely on machine table on vice or between centres as required in correct alignment using dial indicator, bolts, nuts, clamps and other fixtures and instruments. Selects and clamps selected cutter on arbor (tool holding device of) or spindle of milling machine. Sets machine, dividing head, work, gear trains, machine feed and speed etc. depending on nature of machine operation and metal handled. Starts machine. Manipulates hand wheels or applies automatic controls to start machining. Controls flow of cutting lubricant on edge of tool and observes progress of cutting. Stops machine and checks product while machining and on completion using gauges and measuring instruments for accuracy. Repeats process if necessary. May perform machine operations such as keyway milling, gear cutting, facing flute cutting, surfacing etc. as required. Is designated as HOBBING MACHINE OPERATOR, if engaged in hobbing machine. May clean and oil machine. May grind and make form cutters.

Qualification Pack Details:

QP NOS Reference	CSC/Q0108
QP NOS Name	Operator– Conventional Milling
NSQF Level	2

ISCO 08 Unit Group Details:

Code 7223

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Metal Working Machine Tool
Setters and Operators

7223.1300 Gear Cutter

Gear Cutter cuts gear-teeth on metal blanks on gear cutting machine using special cutters. Examines drawings and other specifications of gear to be cut. Calculates suitable gear trains for division, cutter and blank arbor rotations proper helix, and different angles, automatic feed, number and type of cutter etc. and sets machine accordingly. Mounts blank in position using mandrel, fixtures etc. as required and sets appropriate cutter or tool on machine. Turns and adjusts angle and position of blank and cutter in relation to one another and adjusts relief of cutter teeth according to calculations. Adjusts guides and stops to limit or control movement of tools. Selects rotation speed of metal blank and starts machine. Turns hand wheels or engages automatic controls to guide cutting tool into or along metal. Controls flow of cutting lubricant over tools and observes operation. Stops machine and checks cut teeth for size, depth and shape using measuring instruments and gauges for accuracy. Cleans and oils machine. May grind or recondition own tools. Is designated as BEVEL GEAR SHAPER; GEAR PLANER; GEAR SHAPER; GEAR HOBBER; etc., according to type of gear and machine operated.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.1400 Heavy Duty End Mill Operator

Heavy Duty End-Mill Operator machines ends of columns, girders etc. to required finish for structural work by means of segmented end-mill and heavy duty milling machine. Fastens metal object accurately in position on machine table, using nuts, bolts and other fixtures. Selects appropriate segmented milling cutter and fixes it to machine spindle. Adjusts guides, stops and other controls or determine speed and limits of table movement. Starts machine. Controls flow of cutting lubricant on edge of tool and observes progress of milling ends of metal object. Stops machine when milling is over and checks finished surface for accuracy to required tolerances using measuring instruments. Removes metal from table and repeats process. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.1500 Driller Metal, General

Driller Metal, General drills holes in metals according to specifications using drilling machine. Studies markings or drawings and other specifications for type and nature of holes to be drilled. Selects appropriate drilling bit or cutter and fits it in machine spindle using drilling chuck or otherwise. Aligns metal accurately in position on machine, table using jigs and other fixtures as required. Adjusts guides and stops to limit or control downward movement of drill. Sets rotating speed of spindle and starts machine. Lowers drill exactly on control punch mark on hole to be drilled. Controls flow of cutting lubricant on edge of drill. Observes

progress of drilling and makes necessary adjustments to ensure accuracy. Stops machine and pull out drill when hole is drilled. Cleans drilled area and checks hole for accuracy with measuring instrument. Selects and uses counter bores where required. May use reamers for reaming operation. May do tapping (screw cutting) on drilling machine using tapping attachment. May sharpen and recondition drill bits or tools.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.1600 Radial Driller

Radial Driller operates radial drilling machine to drill holes in heavy metal blocks, girders, plates, etc. by adjusting radial arm and carriage of machine according to positions of holes to be drilled. Studies drawings and other specifications for size and number of holes to be drilled on metal. Fastens metal accurately in position on machine table, using dial indicator, jigs and other fixtures as required. Selects appropriate drill and fixes it in machine spindle. Draws by hand moveable arm or carriage to bring drill bit over required area of metal for drilling and starts machine. Lowers spindle, aligns drill accurately over hole to be drilled. Checks setting for accuracy by trial, readjusts if necessary and locks respective positions. Controls flow of coolant while drilling. Checks hole for accuracy. Repeats drilling operation over wide area of metal by stretching radial arm and adjusting position of carriage and drilling spindle over hole to be drilled. Is designated as TOWER DRILLING MACHINE OPERATOR if

engaged in operating tower drilling machine to drill large number of uniform holes in big plates, columns etc. by adjusting position of travelling tower in relation to location of holes to be drilled. May clean and oil machine. May grind drills. May cut screws with tapping arrangement and do reaming and counter boring where needed.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool

7223.1701

Borer/Operator Boring Machine Operator

Borer bores holes in metal objects for various mechanical purposes by means of boring bars and boring machine. Examines drawings and other specifications of holes to be bored. Fastens metal object accurately in position on machine table, using jigs and fixtures as required. Selects boring bar and fixes it in machine spindle. Centres hole accurately using cutting tool as guide and adjusting object to desired position. Selects and sets speed and feed of machine. Starts machine to rotate cutting tool or object depending on type of machine operated and moves levers to advance cutting tool into position to start boring. Controls flow of cutting lubricant on edge of tool. Checks progress of boring with measuring instruments and makes necessary adjustments to ensure accuracy. Stops machine when boring is completed and removes object from table. Repeats operations as required. Sets machine to required pitch after adjusting hole position while threading by boring machine. Is designated as VERTICAL BORER or HORIZONTAL BORER according to type of machine operated. May clean and oil machine. May sharpen

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and recondition tools. May set the machine for operator. May set depth of cut and do step boring in blind holes.

Qualification Pack Details:

QP NOS Reference	CSC/Q0107
QP NOS Name	Boring Machine
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7223
Title	Metal Working Machine Tool Setters and Operators

7223.1800

Cylinder Borer

Cylinder Borer Bores cylinders of engines to specified accuracy by means of cylinder boring machine and special cutting tools. Examines drawings and other specifications of cylinder to be bored. Fastens cylinder block on machine table in position by use of jigs and fixtures as required. Selects cutting tool and fixes it in machine spindle. Adjusts position of cylinder block accurately below cutting tool exactly over cylinder hole to be cut. Selects rotation speed of tool, starts machine and applies cut. Switches on vacuum pump mechanism of machine. Controls flow of lubricant on tool. Observes progress of work. Checks size of bore with gauge or measuring instrument and ensures that cuttings are drawn off by suction while boring. Stops machine when boring to required finish is completed and cutting tool automatically withdrawn from cylinder hole. Checks cylinder hole with measuring instruments to ensure accuracy. Repeats operations as required on other holes to be bored. May do cylinder re-boring. May make simple adjustments to machine. May clean and oil machine.

ISCO 08 Unit Group Details:

Code	7223
Title	Metal Working Machine Tool Setters and Operators

7223.1900

Rifling Machine Operator

Rifling Machine Operator sets and operates rifling machine to make grooves inside rifle barrels. Studies drawings and other specifications of barrel rifling of to be done. Centres barrel in steady-rests and chuck of machine. Mounts appropriate broach cutter or sets of cutters on cutting head at end of riffling bar of machine and adjusts them to cut grooves of required specification. Regulates oil feed on edge of cutter. Starts machine to move rifling bar and cutters spirally through bore of barrel. Observes operation of cutting grooves (rifling) in bore surface. Stops machine when cutter has passed entirely through bore and withdraws rifling bar. Measures rifling with gauges to ensure conformity to specification. Removes barrel from machine and inspects rifling for defects. Removes dulled cutters and replaces them with sharpened ones as necessary to ensure that rifling grooves are cut to specified depth. May shape, harden and temper cutting tools.

ISCO 08 Unit Group Details:

Code	7223
Title	Metal Working Machine Tool Setters and Operators

7223.2000

Bending-Machine Operator

Bending-Machine Operator sets up and operates machine to bend metal structural shapes, such as bars, rods, angles, pipes, and tubes, to angle or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

contour specified by work order, drawings, templates, or layout: Selects and bolts holding clamp, die block, and guide clamp to machine. Positions and clamps end stops on machine to set specified location of bend. Inserts or screws plug stops into guide wheel to set specified degree of bend. Positions workpiece against end stop. Locks holding clamp and guide clamp onto workpiece. Lubricates workpiece with oil. Starts turntable that draws workpiece through guide clamp around die block until stopped by plug stops or until dial indicator points to specified degree of bend. May slide mandrel into tubing instead of using guide clamp. May preheat workpiece, using hand torch or heating furnace. May use hand-powered bending machine for short runs. May fill tubes or pipe with sand, resin, or lead to prevent wrinkling or collapsing during bending operation. May heat tube, using torch, and manually bend tube or pipe around forming blocks. May flare tube ends, using tube flare and cut or trim metal stock to length, using power shears or saws.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.2100

Glazer

Glazer; Buffer grinds and polishes metal components before and after electroplating, on polishing lathe, using appropriate wheel of cloth, leather or felt and chemical compounds. Starts polishing lathe, fit buffing wheel to it and applies emery compound. Holds component in hand or in suitable holding device and presses it against rotating wheel. Grinds surface slowly to uniform finish. Replaces

buffing wheel by polishing wheel, applies polishing compound and repeats process for setting grains and obtaining high polish. May also polish metal articles without plating.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.2200

Grinder, Tool and Cutter

Grinder, Tool and Cutter grinds machine tools and cutter to correct specifications by special grinding machines and wheel. Studies drawings and other specifications to understand nature of grinding operation required. Fastens appropriate abrasive wheel to spindle of machine. Mounts cutting tool to be ground on machine using dividing head, jig or fixture as required. Manipulates swivel tables, wheel head and work holding device, guide finger, etc. as necessary to set machine to appropriate angle for grinding desired level on cutting edges of tool selects and sets speed and feed to machine according to nature of work and wheel used. Starts machine, brings rotating grinding wheel in contact with edge of tool and grinds proper angles, clearance, flutes etc. as required on tool or cutter set, frequently checking it with gauge or measuring instrument while grinding to ensure accuracy. Rotates work through proper angle by dividing head or otherwise to set next flute or teeth of tool or cutter for grinding and continues operation. Uses cutting fluid or coolant as found necessary and ensures that no part of work gets burnt or damaged while grinding. Stops machine and removes tool when grinding is completed. Changes grinding wheel and position of tool as and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

when required. May give final finish to cutting edge by hand using hones. May oil and clean machine. May specialize in grinding a particular type of tool and be designated accordingly. May check ground tool or cutter by shadow projector to ensure accurate finish.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.2300 **Power Press Operator, Metal**

Power Press Operator, Metal operates power driven press for manufacture of sheet metal components by punching, blanking and forming operations. Operates machine manually to check length of stroke of rams, setting of die and punch, placing of safety guards and ensures that machine is safe for operation. Starts machine, feeds metal strip, sheet or component on die and presses foot pedal or hand lever, as provided in machine, to bring punch over die to cut, bend or form metal according to type of tool set. Stops machine, get trial pieces inspected and continue operation after resetting, if necessary. Arranges ready stock of feeding material and set machine for continuous operation if possible. Observes operation, avoids wastage, maintains production and gets cuttings and components removed as necessary. Is designated as Broaching Machine Operator if engaged in broaching operation (cutting away metal). May get metal strips and shafts oiled before feeding. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.2400 **Sheet Metal Machine Operator**

Sheet Metal Machine Operator operates sheet metal machine for sizing, bending and forming sheet metal for further operations. Sets machine to required dimensions (except press tools) using common measuring instruments such as foot rule, callipers etc. Operates machine, feeds trial piece and checks for dimensions and resets machine if necessary. Checks out-turn from time to time to ensure correctness. May operate one or more sheet metal working machines such as shearing machine, bending machine, channelling machine, forming machine and is designated as SHEARING MACHINE OPERATOR, BENDING MACHINE OPERATOR, CHANNELLING MACHINE OPERATOR, GROOVING MACHINE OPERATOR, FORMING MACHINE OPERATOR, etc. May set cutters, blades, dies etc. and undertake minor repairs under guidance.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.2500 **Ball Filling Machine Operator**

Ball Filing Machine Operator sets and operates ball filing machine for filing balls to required diameters. Studies drawings and other specifications of ball to be made. Starts pump and conveyor, feeds roughly pressed balls into intake hopper and regulates its supply to machine. Feeds balls into conveyor and rotates pressure wheel manually for trial operation. Adjusts machine, guides, stop and other controls to regulate load, wheel pressure,

etc. according to machine performances and specifications prescribed. Rotates wheel at required speed to control cutting of balls fed and ensures desired smoothness of ball surface. Starts machine. Adjusts feed finger and pick off finger in tool pocket for obtaining desired clearances. Examines filed balls visually and with measuring instrument to ensure uniformity, smoothness of filing and adherence to specifications. Unloads filed balls from machine through chute to container placed below. May clean and oil machine. May operate ball grinding machine and be designated as BALL GRINDING MACHINE OPERATOR.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.2600

Ball Lapping Machine Operator

Ball Lapping Machine Operator laps steel balls after grinding to accurate and high finish by special grinding wheels and lapping machine mostly for manufacture of ball bearings. Starts pump and conveyor and feeds hard ground balls into intake hopper. Adjusts machine, guides, stops and other controls to regulate load, wheel pressure etc. according to machine performance and specifications prescribed. Starts machine, sets rotation speed of wheel and regulates flow of coolant and oil into machine. Opens hopper gate and feeds ball into machine. Observes operation and adjusts feed finger and pick-off finger in tool pocket for obtaining required finish. May operate ball grinding machine and be designated according.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.2700

Dividing Machine Operator

Dividing Machine Operator calibrates and graduates metal, wood, perspex or ivory scales into required number of divisions by dividing machine for measuring lengths and angles. Studies drawings and other specifications of parts to be calibrated. Selects metal, ivory or plastic work piece depending on nature of work and specifications prescribed. Marks or bisects work piece as required. Secures blank plate on circular or rectangular calibrated or graduated base plate of machine with catching devices. Aligns blank and base plates according to specification and number of divisions to be marked. Adjusts dividing machine by turning its pointer to required position; and sets it (machine) to required rotations to rotate base and blank plate to set position according to number of division required. Presses and draws forward by hand pointer of machine over blank plate to cut lines, marks etc. to indicate divisions. Completes calibrating plate with specified divisions to indicate lengths, angles etc., by rotating wheel of machine and graduating blank plate with pointer mechanism. Removes calibrated plate from machine and cleans and polishes it to give smooth finish using emery paper. Sends graduated plate to Engraver for engraving appropriate numerals, words, degrees, etc. May sharpen knife or cutter of machine. May engrave plate with specified marks, symbols, etc.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.2800

Die Copying Machine Operator/Die Sinking Electric Discharge Machine Operator

Die Copying Machine Operator; Die Sinker Machine sets and operates special type of electronic or hydraulic die sinking machine for making dies by copying master (Pattern). Places master and metal block at appropriate distance on machine table and rigidly secures them in position with bolts and nuts. Selects tracer pin or feeler and fixes it in machine spindle over master and sets appropriate cutter in other spindle over metal block to be cut. Centres position of tracing pin and cutting tool by adjusting position of master and metal block by movement of machine table according to markings made on block. Lowers spindles to have tracer pin or feeler touch master and cutter set on metal block. Sets feed and speed of machine. Starts machine and regulates flow of coolant over cutter. Observes operation as tracing pin or feeler travels over contours of master die and its reproduction by processes of copying on metal block by cutter. Measures machined area frequently with precision instruments for length, width and depth and ensures exact copying of master pattern. Stops machine when required to change tracer and cutter according to nature of operation and continues operation until master pattern is completely reproduced on metal block. Checks completed die copied on metal block along with master, using precision instruments and ensures desired accuracy in all dimensions. May oil and clean machine. May send machined die for

further milling (cutting) to secure better or final finish if necessary.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.2900

Profiling Machine Operator

Profiling Machine Operator sets and operates profiling machine (special type of milling machine) to make smaller dies, gauges, etc. by copying samples and templates in two dimensions (length and breadth). Fixes cutting tool and work (metal block) on machine and sets table feed and cutter speed. Clamps model (sample) or template of object to be made on fixture attached to machine. Fits tracing finger or pin on secondary or tracing spindle of machine. Turns and wheels to bring tracing finger in contact with model or template and milling cutter with work respectively. Regulates flow of coolant (cutting lubricant) on cutter and starts machine. Observes operation of automatic machining of work of copying sample or template according to travel of tracing figure in contact with model (sample or template). Checks progress from time to time with precision measuring instruments to ensure correct machining. Stops machine to change milling cutter. Re-sets work in position, etc. if necessary and continues machining until model is exactly reproduced in work to ensure accurate copying. Removes work from machine, cleans and oils machine. May be designated according to parts and nature of profiling work done.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7223.3000

Metal Stamper

Metal Stamper stamps trademarks, code number and other designs on metal parts or components using stamping machine. Fits appropriate metal die containing trademarks, symbol, batch number etc., to spindle of stamping machine. Starts machine. Places hot or cold metal object or component holding with tongs, below spindle on machine table and presses pedal to lower and press die over metal for stamping appropriate marking, checks and ensures that stamping on metal is clear. Reports defects to superior and gets machine reset. Removes stamped metal from table and places it at required place. May clean and oil machine. May keep record of stampings made.

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.5001

Machining Technician/CNC Operator

Machining Technician is also known as Machinist or CNC Machine Operator. The role covers operations of different machine tools performed both manually and through automatic/CNC machines/robots. This role primarily involves all kinds of machining and in-line inspection activities for quality verification, ad hoc repair work, change of worn out parts, gauging and deburring activities.

Qualification Pack Details:

QP NOS Reference ASC/Q3503

QP NOS Name	Machining Technician/CNC Operator L4
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.5002

CNC Operator-Machining Technician

CNC Operator-Machining Technician sets up base level operations of different machine tools and same can be performed both manually and through automatic machines/robots. Machining Technician Level 3 is often called Assistant Machinist, Junior Machinist, Lathe Operator, Apprentice Machinist, Semi-Skilled Operator. This role primarily involves supporting the Machine Operator in all pre machining activities, machining of the actual part, ad hoc repair work like in auto service stations, gauging, deburring and inspection activities

Qualification Pack Details:

QP NOS Reference ASC/Q3501

QP NOS Name CNC Operator-
Machining
Technician L3

NSQF Level 3

ISCO 08 Unit Group Details:

Code 7223

Title Metal Working Machine Tool
Setters and Operators

7223.5003

CNC Operator-Machinist

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

A CNC Operator is responsible for maintaining and operating CNC machine. The individual monitors gauges and dials. The individual must be proficient in programming and setting CNC machinery.

Qualification Pack Details:

QP NOS Reference	ASC/Q1903
QP NOS Name	CNC Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7231
Title	Motor Vehicle Mechanics and Fitters

7223.5004

CNC Operator-Vertical Machining Centre

CNC Operator-Vertical Machining Centre produces components that combine a number of different features, such as flat faces, parallel faces, faces square to each other, faces at an angle, steps/shoulders, open and enclosed slots, drilled, bored and reamed holes, internal threads, and special forms. It involves continuously monitoring, inspecting the components and meeting production targets.

Qualification Pack Details:

QP NOS Reference	CSC/Q0116
QP NOS Name	CNC Operator-Vertical Machining Centre
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7223
Title	Metal Working Machine Tool Setters and Operators

7223.5005

CNC Setter cum Operator-Vertical Machining Centre

CNC Operator-Vertical Machining Centre produces components that combine a number of different features, such as flat faces, parallel faces, faces square to each other, faces at an angle, steps/shoulders, open and enclosed slots, drilled, bored and reamed holes, internal threads, and special forms. It involves continuously monitoring, inspecting the components and meeting production targets.

Qualification Pack Details:

QP NOS Reference	CSC/Q0123
QP NOS Name	CNC Operator-Vertical Machining Centre
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7223
Title	Metal Working Machine Tool Setters and Operators

7223.6001

CNC Setter cum Operator-Turning

CNC Setter cum Operator-Turning sets up the CNC turning machine, its work holding devices, tooling, loading the machine operating programs, conducting trial runs and correcting faults, in order to ensure that the work output is produced as per specification.

Qualification Pack Details:

QP NOS Reference	CSC/Q0120
QP NOS Name	CNC Setter cum Operator-Turning
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7223
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Metal Working Machine Tool
Setters and Operators

7223.6002

CNC Operator-Turning

CNC Operator-Turning removes metal from the outer diameter of a rotating cylindrical workpiece. It also involves inspecting the components and continuously monitoring of the machining operations and making minor adjustments in order to ensure that the work output is to the required quality and accuracy.

Qualification Pack Details:

QP NOS Reference CSC/Q0115
QP NOS Name CNC Operator-Turning
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.6003

CNC Programmer

CNC Programmer produce the component program using manual data input or by use of a remote computer, saving the prepared program on the machine controller from the computer. This involves understanding the CNC machine tools used in the process, their application and programming, editing and proving process, in adequate depth to provide a sound basis for carrying out the activities.

Qualification Pack Details:

QP NOS Reference CSC/Q0401
QP NOS Name CNC Programmer
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

7223.9900

Metal Working Machine Tool Setters and Operators, Others

Machine Tool Operators, Other includes all other Machine Tool Operators engaged in operating automatic, semi-automatic and simple special purpose production machines, sawing and filing by machine, grinding by hand, cutting threads in bolts and nuts etc., and may be designated as; Automatic Machine Operator if tends and feed, one or more automatic machine tools; De-Burrer if removes burrs and rough spots from metal parts or castings by use of hand files or using emery stone; Sawing Machine Operator if cuts and files various materials using electrically powered band-type sawing and filing machines; Thread Roller if tends screw-making machine in which thread is formed on screws by rolling head with circular dies by action of hardened metal dies that reciprocate, rolling screw shank between their surfaces and pressing metal of screw shank into thread form; Tapping Machine Operator if cuts internal and external threads by means of tapping machine set up and adjusted by other workers or themselves; Profile Roller etc.

ISCO 08 Unit Group Details:

Code 7223
Title Metal Working Machine Tool
Setters and Operators

Family 7224
**Metal Polishers, Wheel Grinders
and Tool Sharpeners**

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Metal polishers, wheel grinders and tool sharpeners polish and grind metal surfaces and sharpen tools.

7224.0100 Grinder, General

Grinder General grinds and smoothenes metal surfaces to specified accuracy using one or more type of grinding machine. Examines drawings and other specifications of part to be ground. Selects grinding wheel of appropriate size, shape and abrasive quality and fastens it on spindle of machine. Mounts metal part accurately in position on machine using chucks, jigs, fixtures or between centres of head and tail stock of machine as required and sets it accurately either parallel or at angle in relation to grinding wheel as specified using appropriate devices and instruments necessary. Adjusts machine table, guides, stops and other controls to determine direction and limit of metal and grinding wheel movements. Selects grinding wheel speed and starts machine for grinding. Manipulates hand wheel or sets and starts automatic controls to bring grinding wheel in contact with work. Checks progress of grinding with measuring instruments and gauges for accuracy. May balance dress or change grinding wheel, stone or abrasive. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 7224
Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0102

Fitter-Fabrication

Fitter-Fabrication identifies metals, tools; carrying out fitting and fabrication operations like measuring, marking out,

sawing, grinding, drilling, chiselling, threading, tapping, scraping, manual lapping and inspecting of components in order to fit a component as per specifications. It also involves basic oxy-fuel gas cutting and basic manual arc welding as per given instructions and under supervision.

Qualification Pack Details:

QP NOS Reference	CSC/Q0303
QP NOS Name	Fitter-Fabrication
NSQF Level	2

ISCO 08 Unit Group Details:

Code 7224
Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0200

Grinder, Crankshaft

Grinder, Crankshaft grinds crank pins and journals of crankshaft accurately to uniform diameters by special grinding machine and attachments. Studies drawings and other specifications of parts to be ground. Fastens crankshaft accurately in position on machine using chucks, fixtures, and other devices and sets portion to be ground, using dial indicator, marking block or otherwise. Selects appropriate type and quality of grinding wheel and fits it on machine spindle. Adjusts guides stops and other controls to determine limit of work and grinding wheel movements. Selects rotation speed of wheel and starts machine. Manipulates hand wheels of machine and brings rotating grinding wheel in touch with crankshaft journal or area to be ground. Regulates flow of coolant over ground portion. Observes progress of grinding to prescribed accuracy and finish. Stops machine periodically and checks for accuracy using

micrometre or set gauges. Removes crankshaft when grinding is over and repeats operations on other portions as required. May make simple adjustments to machine. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 7224

Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0300

Roll Grinder

Roll Grinder grinds shafts, rollers, commutator etc., to accurate finish for various mechanical purposes by centreless, cylindrical or universal grinding machine. Studies drawing and other specifications of parts to be ground. Selects and mounts appropriate abrasive wheels on machine. Turns hand wheel to adjust gap between rims of wheels according to diameter of part to be ground. Moves levers to select appropriate speeds for each wheel. Sets feed guide to guide work into position between two wheel rims and clamps coil guide properly to receive work from between wheel rims. Starts machine and feeds work on to feed guide or keeps hopper filled with objects that are automatically fed between wheels. Observes progress of work and checks periodically ground parts with micrometre or gauge to ensure that they conform to prescribed specifications. May do cylindrical grinding of parallel, step and taper shafts and internal bores set between centres or otherwise by processes of traverse plunge or angular grinding and be designated as CYLINDRICAL GRINDER or INTERNAL GRINDER as appropriate. May set or adjust grinding wheel distance for

different operations. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 7224

Title Metal Polishers, Wheel Grinders and Tool Sharpeners

R/RM/O Classification: R

7224.0400

Surface Grinder

Surface Grinder grinds flat surfaces of machined metal objects to required finish and thickness by surface grinding machine. Studies drawings and other specifications for nature of grinding operations required. Selects appropriate grinding wheel and fits it on machine spindle. Places work in position on magnetic chuck on the machine. Sets required speed of grinding wheel and feed of machine and adjust guides and stops to control to and fro travel of machine table. Starts machine and brings grinding wheel into contact with work. Applies cut and observes progress of operation. Stops machine and measure work as necessary to ensure required accuracy. Removes work from machine when grinding completed. May operate horizontal or vertical spindle surface grinding machine. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 7224

Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0401

Grinder – Hand held and Power Tools

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Grinder – Hand held and Power Tools selects appropriate grinding equipment, tools and methods to suit work requirements, preparing the tools, applying grinding procedures for carrying out the grinding operations, inspecting the components after grinding operations and correcting faults.

Qualification Pack Details:

QP NOS Reference	CSC/Q0302
QP NOS Name	Grinder – Hand held and Power Tools
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7224
Title	Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0402 Operator-Conventional Surface Grinding Machines

Operator-Conventional Surface Grinding Machines carries out the grinding operations, in accordance with approved procedures, using different grinding machines (e.g. horizontal or vertical surface, cylindrical or universal grinding machines).

Qualification Pack Details:

QP NOS Reference	CSC/Q0109
QP NOS Name	Operator-Conventional Surface Grinding Machines
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7224
Title	Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0500

Thread Grinder

Thread Grinder finishes accurately threads of precision bolts, taps etc. by thread grinding machine. Studies blue print for pitch and other specifications of threads to be ground. Adjusts wheel of grinding machine and dresses grinding wheel to required pitch and cross-sectional shape of thread to be ground. Checks ground wheel with gauges to ensure accuracy. Mounts grinding wheel on spindle of machine and sets it to required, grinding operation. Mounts threaded work piece to be ground on machine and fastens it securely. Adjusts proper gears in feed mechanism of machine to give threads specified pitch. Sets prescribed speed and feed of machine. Starts machine, and applies cut by matching ground wheel and thread on work piece perfectly. Observes operation as first cut is completed. Stops machine and returns wheel to original position. Checks dimensions of finished threads using measuring instruments and gauges. Makes adjustments, if necessary, and repeats operation until thread is properly ground. May clean and oil machines.

ISCO 08 Unit Group Details:

Code	7224
Title	Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0600

Honer/Honing Machine Operator

Honer grinds internal surface of bores and cylinders to accurate mirror like finish with honing machine. Mounts ground cylinder accurately in position on machine, using clamps, jigs and other fixtures. Selects appropriate honing stick (abrasive tool) and clamps it on spindle of machine. Aligns cylinder accurately so that

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

honing tool goes smoothly inside cylinder bore. Sets machine to feed and rotate hone at appropriate speed and starts machine. Expands tool to required diameter and manipulates hand wheel to feed tool into cylinder. Engages automatic feed that oscillates hone within cylinder and regulates supply of cutting lubricant over honing tool. Checks progress of honing as required with measuring instruments and makes necessary adjustments to ensure accuracy. Removes work when honing is completed. May do internal grinding of cylinders and bores. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 7224

Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0700

Lapper

Lapper smoothens hardened flat, cylindrical, spherical or other metal surfaces mechanically or manually to glossy finish by rubbing surfaces with fine abrasives. Examines drawings and other specifications of part to be lapped and selects appropriate abrasive dust. Fits lapping wheel and sets object to be lapped on machine. Applies abrasive dust on metal surface and wheel and starts machine. Brings metal objects in contact with lapping wheel or holds work by hand over lapping wheel and polishes surface to required finish. Applies abrasive compound where necessary to attain high degree of finish. Smoothens or polishes surface for set period. Removes metal and cleans it in special liquids. May do hand lapping by enclosing object in container and vigorously rubbing by hand top plate of container with abrasive compound on

metal surface to attain high degree of polish and accurate finish.

ISCO 08 Unit Group Details:

Code 7224

Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0701

Super Finishing Technician

Super finishing Technician Level 4 is a skilled operator. The role covers operations of different machine tools performed both manually and through automatic/CNC machines/manually and all kinds of activities like burnishing, lapping, buffing and in-line inspection activities for quality verification, adhoc repair work, change of worn out parts and gauging activities.

Qualification Pack Details:

QP NOS Reference ASC/Q4301

QP NOS Name Super Finishing Technician

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7224

Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0801

Polisher

Polisher polishes metal articles such as household utensils, vases etc. to high finish on polishing spindle with abrasives and polishing tools. Fixes article on suitable adapter screwed to spindle. Starts motor to rotate spindle and adjusts article on adapter to run concentric. Presses fine emery paper on article to glossen surface. Improves texture and attains high polish

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

by manipulating polishing tool against article. May also polish silver and costly wares with buff for still higher finish.

Qualification Pack Details:

QP NOS Reference CSC/Q0113
QP NOS Name Polisher – Machine
NSQF Level 2

ascertains it by means or pyrometer or otherwise. Removes metal object from furnace when they have attained required heat and places them in vats of prepared chemical solution. Removes metal objects from chemical bath when bluing is completed and washes them in oil.

ISCO 08 Unit Group Details:

Code 7224
Title Metal Polishers, Wheel Grinders and Tool Sharpeners

ISCO 08 Unit Group Details:

Code 7224
Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.0900

Saw Grinder, Hand

Saw Grinder, Hand sharpens teeth of different kinds of saws by filing and slightly bending them in required direction. Examines dull saw blade and determines extent of grinding and mending of saw teeth required. Fixes saw blade of wooden cramp and grinds each saw tooth individually with triangular file. Feels sharpness by touch and bends saw teeth alternately or as designed using hammer and sawage or special pliers. May make saws by cutting fresh teeth and fixing handle in new or used blades.

ISCO 08 Unit Group Details:

Code 7224
Title Metal Polishers, Wheel Grinders and Tool Sharpeners

7224.9900

Metal Wheel Grinder, Polishing and Tool Sharpeners, Other

Metal Wheel Grinders, Polishers and Tool Sharpeners, Other include all other Metal Grinders, Polishers and Tool Sharpeners engaged in grinding and polishing knives, cutlery, choppers, domestic appliances and such other items and tools, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7224
Title Metal Polishers, Wheel Grinders and Tool Sharpeners

Group 723

Machinery Mechanics and Repairers

Machinery mechanics and repairers fit, install, maintain and repair engines, vehicles, agricultural or industrial machinery and similar mechanical equipment.

Occupations in this Group are classified into the following Families:

7231 Motor Vehicle Mechanics and Repairers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7232	Aircraft Engine Mechanics and Repairers
7233	Agricultural and Industrial Machinery Mechanics and Repairers
7234	Bicycle and Related Repairers

Family 7231 Motor Vehicle Mechanics and Repairers

Motor vehicle mechanics and repairers fit, install, maintain, service and repair engines and the mechanical and related equipment of passenger cars, delivery trucks, motorcycles and other motor vehicles.

7231.0100 Mechanic, Automobile

Mechanic, Automobile repairs overhauls and services motor vehicles to keep them in good running condition. Examines vehicle to ascertain nature and location of defects either by running engine or driving vehicle on road. Dismantles partially or completely defective unit or parts of vehicle such as engine, gear box, rear axle, front axle, steering assembly, radiator, etc. according to nature of repairs to be done, using hoist, jack, pullers, hand tools and other devices. Measures essential parts like cylinder, bores piston, sizes crank pins etc. using gauges, micrometre and other precision tools and gets cylinders re-bored, liners filled, valve seats refaced, bearings re-metalled etc. as necessary. Repairs or overhauls and assembles engine by performing tasks similar to those of Mechanic Petrol or Diesel Engine such as replacing defective parts, scrapping bearings, grinding valves, setting timing, cleaning injectors, tuning

carburettor etc. according to maker's specification. Replaces or repairs defective parts of gear box, rear axle, steering mechanism etc. and sets them right ensuring correct alignment, clearance, meshing of gears, specified movements and operations. Relines and builds brakes, sets wheel alignment, adjust, steering, clutch, hand brakes etc. fits new or repaired accessories and body parts, makes electrical connection, and performs other tasks to effect repairs. Lubricates, joints, tightens loose parts, tests performance of vehicle by driving on road and makes necessary adjustments to attain desired standard. May assemble complete vehicle from finished components.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

7231.0101 Maintenance Technician-Service Workshop

Maintenance Technician maintains and manages tools and equipment used in the workshop.

Qualification Pack Details:

QP NOS Reference ASC/Q1601
QP NOS Name Maintenance Technician-Service Workshop
NSQF Level 4

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

7231.0102 AC Specialist

AC Specialist is responsible for installing, servicing and repairing an air conditioning system of a vehicle. The individual also performs routine maintenance of the various components associated with the air-conditioning system of the vehicle.

Qualification Pack Details:

QP NOS Reference ASC/Q1409
QP NOS Name AC Specialist
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

7231.0103 Automotive Body Technician Level 3

Automotive Body Technician is responsible for assisting in repair of vehicles and carrying out work on the body and frame of a vehicle following the manufacturer's repair procedures.

Qualification Pack Details:

QP NOS Reference ASC/Q1410
QP NOS Name Automotive Body Technician Level 3
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

7231.0104

Automotive Body Technician Level 4

Automotive Body Technician is responsible for repair of vehicles and for carrying out work on the body and frame of a vehicle following the manufacturer's repair procedures.

Qualification Pack Details:

QP NOS Reference ASC/Q1405
QP NOS Name Automotive Body Technician Level 4
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

7231.0105 Brake Specialist

Brake Specialist is responsible for performing diagnostic tests and determining common problems occurring in the Braking and allied systems. The individual also repairs and replaces various components/aggregates in the braking system of the vehicle, and performs routine maintenance of various components/aggregates within the Braking system.

Qualification Pack Details:

QP NOS Reference ASC/Q1414
QP NOS Name Brake Specialist
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7231.0106

Clutch Specialist

Clutch Specialist is responsible for repairing and replacing the clutch assembly and related parts. The individual also performs routine maintenance of various components/aggregates within the Clutch assembly including the pressure plate/clutch plates.

Qualification Pack Details:

QP NOS Reference	ASC/Q1415
QP NOS Name	Clutch Specialist
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7231
Title	Motor Vehicle Mechanics and Fitters

7231.0107

Auto Service Technician-Mechanic

Auto Service Technician Level 4 is responsible for the repair and routine servicing and maintenance (including electrical and mechanical aggregates) of vehicles.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1402
QP NOS Name	Auto Service Technician Level 4
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7231
Title	Motor Vehicle Mechanics and Fitters

7231.0108

Auto Service Technician-Helper

Auto Service Technician Level 3 assists in service, maintenance and technical repair of vehicles.

Qualification Pack Details:

QP NOS Reference	ASC/Q 1401
QP NOS Name	Auto Service Technician Level 3
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7231
Title	Motor Vehicle Mechanics and Fitters

7231.0200

Engine Tester

Engine Tester, Automobile; Test Bed Mechanic, Automobile tests performance of newly assembled automobile engines before fitting them on chassis. Mounts motor on test bed with hoist and clamps it securely in position with nuts and bolts. Connects dynamometer/alternator to crankshaft of engine, oil and fuel line, controls, and other accessories adjusts tappets, starts engine, sets air-fuel ratio and performs precise tune up operations. Runs engine for specified period at different speed and observes performance, unusual noises knocks, etc. reads and records temperature, fuel consumption, oil pressure, compression and power developed at certain speed and other specification and calculates torque, B.H.P thermal efficiency etc. Passes engine to assembly line or reject, it for return to disassembly. May rectify minor faults or report faults noticed.

ISCO 08 Unit Group Details:

Code	7231
Title	Motor Vehicle Mechanics and Fitters

7231.0201

Test Technician

Test Technician is responsible for conducting various types of tests inside the laboratory as well as supporting on road testing. The role holder is responsible for setting the test apparatus on the test bench, connecting the aggregates/vehicle under test to the test bench, support the engineer in taking readings during tests procedures, making minor modifications to the test setup and keeping the test areas and apparatus in a clean and working condition.

Qualification Pack Details:

QP NOS Reference	ASC/Q/8401
QP NOS Name	Test Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7231
Title	Motor Vehicle Mechanics and Fitters

7231.0300

Tractor Mechanic

Tractor Mechanic repairs and overhauls tractors by various mechanical processes for agriculture, constructional and other heavy duties. Examines and drives vehicle on road or runs engine in stationary position to diagnose troubles and defects. Dismantles part or complete engine or unit according to nature of defects. Repairs or replaces defective parts, reassembles them with prescribed settings, clearances, timings and adjustments by further tooling as necessary and ensures accuracy of fit. Installs assembled or repaired engine

securely in position on vehicle chassis and connects oil and fuel lines, controls and other accessories. Starts engine and observes performance for any unusual noise and knocks. Adjusts carburettor, fuel pump (Carburettor for petrol engine and fuel pump for diesel engine), sets clearance between tappets and valves, tunes engine, adjusts brakes, makes electrical connections and performs other tasks to ensure stipulated performance. May repair and overhaul electric motors, fuel pump, carburettor etc. of engine. May weld, braze or solder parts. May repair other agricultural machinery for ploughing, levelling, harvesting etc. and be designated as MECHANIC, AGRICULTURAL MACHINES.

ISCO 08 Unit Group Details:

Code	7231
Title	Motor Vehicle Mechanics and Fitters

7231.0400

Fitter Automobile

Fitter, Automobile attends to minor repairs to motor vehicles under guidance of Mechanic Automobile. Receives instructions from Mechanic, Automobile about tasks to attend. Jacks up vehicle to required height for repair in convenient position where necessary. Removes nuts and bolts to dismantle parts such as water pump assembly, fuel pumps assembly, distributor, carburettor, sparking plugs, starter motors, generator, steering gear, brakes, clutch, transmission and suspension systems, etc. Grinds valve and decarbonises cylinder head under guidance of mechanic and changes oil of engines and transmission system. Tightens loose parts, lubricates joints, does minor repairs, replacements and adjustments and performs simple fitting operations

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

such as filing, chipping, grinding etc. May work in workshops or garage. May drive vehicle on road. May be designated as SERVICE MECHANIC if engaged in cleaning, polishing, oiling and greasing vehicles and do minor routine adjustments as included in servicing.

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

7231.0401 Mechanic Fitter

Mechanic/Fitter is responsible for repair, maintenance and overhaul of crushers, heavy earth moving machinery, medium and light vehicles, pumps and compressors and other mechanical equipment and assemblies used in a mine. A fitter most often works with/assists technicians who are more qualified and experienced. The individual must be trained to work safely and assure that they can protect themselves and others working around them from getting injured.

Qualification Pack Details:

QP NOS Reference MIN/Q0406
QP NOS Name Mechanic/Fitter
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

7231.0500 Mechanic, Motor Cycle

Mechanic, Motor Cycle repairs, services and overhauls motor cycles, auto-

rickshaws, scooters; etc., to make and keep them roadworthy. Examines motor cycle or scooter to locate faults by running engine in stationary position or by driving it on road. Dismantles parts such as engine, ignition system, dynamo forks, shock absorbers, gear box etc., as necessary. Grinds valves, sets timings, relines brakes, re-bushes steering mechanism, replaces worn out parts, assembles gear box clutch etc. and performs other tasks to effect repair, cleans and sets carburettor, fits driving chain, wheels silencer, kick, gear, clutch and brake levers and other accessories. Adjusts control cables for brake, clutch and accelerator, sets tappets and wheel alignment, tightens loose parts and makes necessary fittings and connections. Changes engine and gear box oil, starts engine and tunes it up. Tests performance of vehicle by driving on road and makes further adjustments to remove defects noticed if any. May assemble motor cycle or auto-rickshaws from assembled parts.

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and Fitters

7231.0501 Auto Service Technician (Two and Three Wheelers)

Auto Service Technician (two and three wheelers) is responsible for the repairing and routine servicing and maintenance (including electrical and mechanical aggregates) of two/three wheeler vehicles.

Qualification Pack Details:

QP NOS Reference ASC/Q1411
QP NOS Name Auto Service Technician (Two

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level and Three
 Wheelers)
 4

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and
Fitters

7231.0900 Cleaner Motor Vehicle

Cleaner, Motor Vehicle cleans and lubricates moving parts of motor cars, trucks and other automatic vehicles and performs various other related tasks. Fills oil cans, grease guns with required type of lubricant. Lubricates vehicles according to charts, instructions, own judgement or knowledge of type of vehicle to be lubricated. Injects oil or grease into various parts of engine or chassis. Inspects transmission, differential and rear axle casing and fills them with grease and oil. Cleans or replaces clogged or damaged lubricators. Examines oil levels in gear box, crankcase, steering box etc., and drains out old oil and refills them with good oil as required. Reports apparent defects to Mechanic. May fill radiator with water/coolant, check and fill distilled water in battery, tighten loose parts such as bolts and nuts, repair flat types, mount tyres on wheel rims, inflate tyres and perform other related duties as assigned.

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and
Fitters

7231.9900 Motor Vehicle Mechanics, Other

Motor Vehicle Mechanics, other perform number of routine and low skilled tasks in repairing and overhauling motor vehicles such as removing mudguards, bonnets etc. to facilitate working, adjusting alternator and fan belt, assist in bleeding of brakes, draining gear box and oil pump, removing and resetting road spring, etc., and are designated as Motor Mechanic Helper, or Garage Boy according to nature of work done.

ISCO 08 Unit Group Details:

Code 7231
Title Motor Vehicle Mechanics and
Fitters

Family 7232 Aircraft Engine Mechanics and Repairers

Aircraft engine repairers and mechanics fit, service, repair and overhaul aircraft engines and assemblies, such as airframes, hydraulic, and pneumatic systems.

7232.0100 Airframe Erector

Airframe Erector assembles fuselage, tail, wings, under carriage, fuel tanks, doors etc. and installs plumbing pulley, pulley brackets and other airframe structural members according to approved schedules. Studies blue print and approved assembly schedules. Assembles airframe components, by supplementary tooling where necessary using jigs, fixtures and other devices. Ensures correct fits, assembly, alignment and clearance according to schedule, using feeler gauges, micrometre etc. Secures members temporarily with fasteners, screws or by

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

tack welding and marks locations for rivet holes. Drills and countersinks holes in members for subsequent riveting, checks operation of pneumatic and hydraulic systems, locates defects and rectifies faults. Tests rigging and satisfactory operation of aircraft control and ensures airworthiness. Is designated as MECHANIC AIRCRAFT AIRFRAME OVERHAULING if engaged in disassembling above parts and reassembling them after necessary repairs. May rivet parts together. May replace, repair and modify passenger galley and toilet structural parts. May maintain record of parts examined.

ISCO 08 Unit Group Details:

Code 7232
Title Aircraft Engine Mechanics and Repairers

7232.0200 Mechanic Aircraft, Propeller

Mechanic Aircraft Propeller installs, repairs and sets aircraft propellers according to design for specified displacement of air. Checks propeller used on aircraft and ensures recommended combinations, mandatory modifications and compliance with Directorate General of Civil Aviation's requirements. Strips or dismantles propeller assembly, gets them properly cleaned and checks them for size, shape, wear and tear, cracks and fatigue using precision instruments and other devices according to set procedure. Assembles propeller with spares, where necessary, according to instructions and approved schedules. Checks fits, clearance, alignment of propeller blades etc. and carries out balancing of components of propeller assembly. Gets balancing done checked and approved by appropriate authority and installs

propeller assembly on test rig to administer tests and functional checks such as blade angle, leak check, micro switch setting etc. as prescribed. May do complete over-hauling of constant speed units and get parts repaired or rectified in appropriate sections.

ISCO 08 Unit Group Details:

Code 7232
Title Aircraft Engine Mechanics and Repairers

7232.0300 Engine Tester, Aircraft

Engine Tester, Aircraft tests performance of aeroplane engines by operating them under controlled conditions, keeping record of various meter readings taken at periodical intervals and interpreting data thus obtained. Prepares engine for tests run. Dresses and installs engine on tests bed, using chain hoist and fastens it securely to bed with clamps and other fixtures. Connects oil and fuel lines, instruments, controls, and accessories. Connects propeller or dynamometer to crankshaft pre oils, primes starts engine according to test run procedure. Runs it for prescribed period at different specified speeds, locates defects and rectifies them. Reads and records speed, temperature, fuel level, oil pressure, manifold pressure and other data in log sheet. Calculates performance of engine at different speeds using slide rule, standard formula and curves and maintains data. Makes minor repairs or adjustments to set engine to required perfection. Maintains test house equipment and calibrates tests fans. Slushes engine and preserves for storage.

ISCO 08 Unit Group Details:

Code 7232

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Aircraft Engine Mechanics and Repairers

7232.0400 Engine Tester, Helper, Aircraft

Engine Tester Helper, Aircraft assists Engine Tester in preparing and mounting aircraft engine on test bed, and in starting engine for performance test. Assists Engine Tester in removing engine to test room and mounting it on test bed, using hand tools, trucks, and hoists, connects oil and fuel line, instruments, controls and accessories. Cleans tools, performs other duties as directed and maintains test bed. May assist in rectifying defects, making adjustments and recording various test data.

ISCO 08 Unit Group Details:

Code 7232

Title Aircraft Engine Mechanics and Repairers

7232.0500 Mechanic Aircraft Engine, Field Service/Filed Mechanic Aircraft

Mechanic Aircraft Engine, FieldService, checks and detects faults, removes defective parts, engines etc. from aeroplane by disconnecting wiring and accessories, installs new or repaired engines and parts and does final adjustments to prepare plane for test flights. Inspects and checks engine to locate defects. Disassembles engine and accessories such as carburettor, fuel pump starters generators, ignition hammers, sparking plugs and other hydraulic and electrical systems. Removes engine for overhauling by disconnecting tubing, wiring and accessories, embolting engine and lifting it from plane with chain

hoist. Replaces or repairs defective or worn out parts and makes necessary accessories and makes final inspection to ensure they are in scheduled and prepares plane for test flight. May assist Aircraft Maintenance Engineer in carrying out routine maintenance as preapproved inspection schedule. Aircraft test engine performance after aircraft had been repaired in shed and does final settings and adjustments before and after scheduled hours of flight. Examines external appearance of engine and listens to engine sound to detect malfunctioning. Times and adjusts engine and replaces parts, such as tyres, wiring, instruments etc. using necessary tools. Inflates tyres, fills gasoline tanks and oil reservoirs, greases moving parts and cleans motors with rags. Starts and warms up motors and taxis aeroplane into position for servicing and loading, checks aeroplane thoroughly before flight according to schedule, trying brakes, operating controls, reading instruments, checking vital parts etc. And ensures that it is absolutely fit for flight. Undertakes similar checking of aeroplanes after scheduled hours of flight to assess airworthiness or necessary repairs. May disconnect and remove engine from aeroplane for overhaul. Proper operating order. Performs miscellaneous duties to service engine such as flushing crankcase, clearing strainer screens and greasing moving parts etc. Installs new or overhauled engine in airplane, connects all part and wiring, checks and removes snags.

ISCO 08 Unit Group Details:

Code 7232

Title Aircraft Engine Mechanics and Repairers

7232.0600

Mechanic Aircraft, Engine Overhauling

Mechanic Aircraft, Engine Overhauling repairs and overhauls aeroplane engines. Examines engine mounted on aeroplane and listens to its idle running sound to detect malfunctioning. Removes engine from airplane using hoist, necessary tools and equipment. Mounts it on work bench. Disassembles engine, cleans parts and examines them to ascertain repairs needed. Repairs or replaces defective parts and reassembles engine by setting timings, clearance, etc. according to manufacturers' specifications. Balances impellers and incorporates modifications as suggested. Runs engine to test performance, makes necessary adjustments to carburettor, and tunes it up precisely using feeler gauge, timing discs and other special tool, performs other tasks to service engine, such as flushing crank case, cleaning strainer screens, greasing moving parts etc. May specialize in servicing and overhauling specific aircraft parts or unit such as carburettor, propellers, landing gears, wings, fuselage, etc. May operate workshop machine for drilling, grinding, milling etc. May keep record of parts examined, repaired and replaced.

ISCO 08 Unit Group Details:

Code 7232
Title Aircraft Engine Mechanics and Repairers

7232.9900 Aircraft Mechanics, Other

Aircraft Mechanics, other include all other workers engaged in assembling and repairing gliders and aircrafts either in workshop or airport, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7232
Title Aircraft Engine Mechanics and Repairers

Family 7233 Agricultural and Industrial Machinery Mechanics and Repairers

Agricultural and industrial machinery mechanics and repairers fit, install, examine, service and repair engines, agricultural and industrial machinery and mechanical equipment, except motor vehicle, aircraft and electric motors.

7233.0100

Fitter, General

Fitter General sizes metal parts to close tolerances and fits and assembles them using hand tools for production or repairs of machines, or other metal products. Studies drawings to understand specification of different parts, fittings or assemblies to be made and their functions. Cuts and shapes required parts dimensions and specifications by processes of sawing, clipping, filing, grinding, drilling holes, screw cutting, scrapping etc., Assembles parts by riveting, screwing, pinning etc. So as to make complete unit according to drawing. Dismantles or removes worn out, broken or defective parts using hand tools and replaces them by repaired or new ones. Tests completed article to ensure correct performance. May do simple turning, planning and shaping of parts on machines and perform welding, brazing, annealing, hardening, tempering and, like operations. May specialize in particular type of machine or product and be

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

designated accordingly. May suggest alterations.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.0101

Maintenance Fitter-Mechanical

Maintenance Fitter-Mechanical dismantles, removes and replaces faulty equipment at component or unit level on a variety of different types of mechanical assemblies and sub-assemblies and diagnosing, locating faults, overhauling, fitting and adjusting mechanical systems and equipment.

Qualification Pack Details:

QP NOS Reference CSC/Q0213
QP NOS Name Maintenance Fitter-Mechanical
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.0102

Iron and Steel-Machinist

Iron and Steel-Machinist identifies the sequence of machining operations required to fabricate product component required to fabricate product components by studying their designs/sample parts and fabricating the components using the appropriate tools and dies.

Qualification Pack Details:

QP NOS Reference ISC/Q0802
QP NOS Name Iron & Steel-Machinist
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.0121

Fitter Levelling, Alignment and Balancing

Fitter Levelling, Alignment and Balancing ensures alignment of moving parts (e.g. Pumps, blowers, fans etc.).

Qualification Pack Details:

QP NOS Reference ISC/Q0814
QP NOS Name Fitter Levelling, Alignment & Balancing
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.0200

Fitter, Bench

Fitter, Bench; Viceman sizes metal accurately to required dimension by sawing, chipping, filing, etc. using hand tools for making specimens or finished components. Studies drawing or measures sample to record dimensions of part to be made. Holds specified material in vice and sizes it by processes of sawing, chipping and filing. Measures object while working using foot rule, callipers, gauges etc. and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

checks for correct filing with square. Gets half-finished objects marked or marks it using face plate, marking block scriber, Vernier, height gauges, vice-blocks, angle plate, sine plate, slip gauges, combination set, etc. depending on accuracies required, to indicate guide lines for finished sizes, holes to be drilled and pitch centres, threads to be cut and other working details as specified in drawing or sample. Clamps object securely in correct position in vice and files it to required dimensions according to punch marks and guide lines frequently measuring it with clippers, micrometre, Vernier, gauges etc.. Drills holes with hand drill, cuts threads with taps and dies ensuring that they are square or at required angle to base. Measure finished article with dial indicator, micrometre, Vernier, height gauges, screw gauges, plug gauges, sine plate slip gauge, etc. according to prescribed accuracies. May make parts separately and assemble them screws, rivets, pins, etc. as specified. May check dimension with shadow graph. May be designated as FITTER TOOL ROOM or Fitter according to nature of work done.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.0300 Mechanic, Petrol Engine

Mechanic, Petrol Engine; Petrol Engine Fitter, locates defects, repairs, and overhauls stationary petrol engines for correct performance to drive pumps, generators, propulsion shafts, etc., checks engine to locate defects. Dismantles or partly dismantles it according to nature of defects and measures essential parts such

as cylinder bore, crank pins, pistons etc., using cylinder gauge, micrometre and other appropriate tools. Gets cylinders rebored, valve seats refaced and liners filled if necessary. Fits and taps pistons in cylinders, decarbonises cylinder head and grinds valves using appropriate abrasives. Replaces or repairs worn out or damaged parts and assembles them, doing supplementary tolling as necessary to ensure accuracy of fit. Installs assembled or repaired engine in position, sets timings, fits accessories, adjusts tappets, carburettor, fan belt etc. and connects it to propulsion drive. Starts engine, tunes it precisely and runs it at prescribed or set standard making necessary adjustments. Observes different readings such as temperature, fuel level, oil pressure etc. for optimum performance. Checks, adjusts and lubricates equipment periodically and performs other operations to keep engine in good working order. May reboore engine, reface valve seats, anneal pipes, braze or solder parts etc.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.0301 Bearing Maintenance

Bearing Maintenance, identify the problems in the equipment, rectify the root causes for leakages, replaces the bearings, lubricates the bearings, ensures fitness of all types of bearings in the plant and carry out routine maintenance.

Qualification Pack Details:

QP NOS Reference ISC/Q0816

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Bearing Maintenance
NSQF Level	3

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.0400

Mechanic, Diesel Engine

Mechanic, Diesel Engine; Oil Engine Fitter repairs services and overhauls diesel or oil engines for efficient performance as prime mover to drive machinery and equipment. Examines engine to locate defects, using various tools and instruments. Dismantles or partly dismantles it to remove damaged or worn out parts and replaces or repairs them. Grinds valve and assembles parts, doing supplementary tooling and other functions as necessary to ensure accuracy of fit. Installs assembled or repaired engine in position and connects pulley or wheel to propulsion system. Starts engine, tunes it up and observes performance noting different meter readings such as temperature, fuel level, oil pressure, etc. and sets it to specified standard for optimum performance. Checks, adjusts and lubricates engine periodically and performs such other functions to keep engine in good working order. May solder or braze parts and service diesel fuel pumps and injectors.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.0401

Belt Conveyor Maintenance

Belt Conveyor Maintenance maintains conveyor system including belts, idlers motors, interlocking belts, bunkers and control systems.

Qualification Pack Details:

QP NOS Reference ISC/Q0812
QP NOS Name Belt Conveyor Maintenance
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.0402

Conveyor Operation and Maintenance

Conveyor Operation and Maintenance inspects the total belt driving system including the controls of conveyer belt as per the required sequence for feeding different raw materials (coal, limestone, iron ore etc.) in the service bunker through crushers/screener etc. This also involves basic maintenance and troubleshooting of the conveyer belt system.

Qualification Pack Details:

QP NOS Reference ISC/Q0008
QP NOS Name Conveyor Operation and Maintenance
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.0600

Mechanic, Gas/Diesel Engine

Mechanic, Gas Engine checks, adjusts, repairs and overhauls gas engines to ensure desired performance. Examines engine to check supply of gas, ignition system, exhaust pipe, crank bearings etc., to locate causes of defective operation. Dismantles part or complete engine according to nature of defects, repairs or replaces defective and worn out parts and reassembles engine with prescribed settings, timing and adjustments by further tooling as necessary, checks entire lubrication system, ensure requisite flow of oil and lubricates all points. Turns engine to check compressions, ensures correct operation of compression release lever and starts engine. Observes performance and makes further settings and adjustments if necessary to ensure correct operation. May repair air or gas compressors and gas producer plant.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.0700

Mechanic, Earth Moving Machinery

Mechanic, Earth Moving Machinery repairs, services and overhauls earth moving machines such as Bull-dozers, scraper, dumpier, power-shovel, dredger, dragline, etc., studies manufacturer's instructions for dismantling and repair work. Examines and drives vehicle to locate defects. Sets right minor defects by cleaning, resetting and adjusting carburettor, fuel pump, injector, plugs, fuel line, electrical circuits etc. Dismantles part or complete engine or defective unit

according to nature of defects and replaces or repairs damaged and worn out parts. Assembles repaired unit or engine, sets timings, clearances etc. and makes necessary adjustments according to specifications by doing supplementary tooling as necessary to ensure accuracy of it. Fits accessories, components and frame to vehicle.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.0701

Mobile Equipment Maintenance

Mobile Equipment Maintenance carries routine maintenance, identifying the problems, rectifying the root causes and ensuring the fitness of all moving equipment, for e.g. Mobile Cranes, Dumper, Forklift etc.

Qualification Pack Details:

QP NOS Reference ISC/Q0815

QP NOS Name Mobile Equipment
Maintenance

NSQF Level 3

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.0800

Mechanic, Road Roller

Mechanic, Road-Roller repairs and overhauls engine transmission system, chassis components and accessories of light or heavy road roller to ensure

efficient performance. Inspects and tests road rollers to locate defects. Dismantles engine and other sub-assemblies, partly or completely according to nature of defects. Repairs or replaces damaged parts of different sub-assemblies fuel injections performing simple machine and fitting operations where required. Checks condition of engine parts such as piston, rings, valves, steam whistle, reversing gear, auto-positive injector in steam engine or plunger, governor, atomiser etc. in case of diesel engine and replaces damaged parts. Refits or assembles components or unit, sets timings, fuel injection, clearances etc. and tests performance. Changes oil in engines and transmission systems and lubricates running parts and joints. Tightens loose parts, makes necessary adjustments and performs other tasks to keep vehicle in good working condition. Runs engine or drives vehicle on yard to check and ensure that all mechanical systems are functioning properly. May braze, solder and weld parts. May drives vehicle on road. May specialize in diesel or steam road rollers.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.0900

Mechanic, Turbine

Mechanic, Turbine; Fitter, Turbine reports irregularities, removes defects and overhauls turbines under guidance of Electrical Engineer or Mechanical Engineer Maintenance Dismantles turbines and their components according to manufacturer's instructions using hoisting equipment under guidance of

Electrical/Mechanical Engineer, examines parts for any damaged or defects and repairs or replaces damage parts by filing, chipping, drilling, grinding, scraping etc., as necessary. Checks level, alignment etc. and changes bearings, shafts and related parts of generator where necessary. Refits parts ensuring correct adjustments, clearance, function level alignment, etc., as per manufacturer's instructions. Starts turbine and observes performance by watching and listening to unusual sounds, leakage, knocks etc. and reports defects to superiors for rectification. May connect water/steam channel from penstock/steam pipe to turbine for flow of water/stream at high pressure to drive turbine blades. May operate turbine. May repair and service mechanical equipment in power house. May oil and grease lubricating points of plant (turbo alternator or turbo-generator) and equipment. May erect turbine alternators or generators under guidance of Mechanical or Electrical Engineer in power houses.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.1000

Mechanic, Stationery Steam Engine

Mechanic, Stationary Steam Engine repairs, services and overhauls steam engine for correct performance. Examines steam pipes, joints, valves etc. to ascertain nature and location of defects and dismantles them partly or wholly as necessary to remove damaged or worn out parts. Replaces or repairs damaged and worn part by remitting, filling, grinding and scraping etc. and measures

them for size to ensure functional accuracy. Checks alignments with gauges and spirit level and assembles parts and complete unit doing supplementary tooling as necessary to ensure accuracy of fit. Tests reassembled equipment, sets valves, adjusts control and makes necessary adjustments. Starts engine, observes gauges and meters to ascertain engine performance, balances etc. and makes further adjustments if necessary. Checks, adjusts lubricates working parts, tightens loose parts and performs other servicing tasks periodically to keep engine in good running condition. Reports to Mechanical Engineer of any service defects noticed for rectification. May keep record of parts examined and engine performance. May erect and install equipment. May operate or drive steam engine.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.1100

Mechanic, Maintenance, Chemical Plant/Technician, Maintenance, Chemical Plant

Mechanic Maintenance (Chemical Plant); repairs and overhauls chemical plant, machinery and equipment periodically and on break downs to maintain them in efficient operating condition. Studies methods of processing of raw material to finished products. Examines plant and equipment to locate faults and removes minor defects on spot. Reports major defects and break downs to Chemical Engineer and dismantles defective unit as directed with necessary precaution, using hand tools, adopter, twists etc. as

necessary. Replaces or repairs defective parts and components by re-metalling, filling, drilling, grinding, scraping, soldering, brazing, etc. as required and reassembles unit according to specifications with prescribed precautions particularly for explosive, gas acid and other chemical plants, ensuring correct alignment clearance, valve operations, adjustments, flow of material operational functions and other necessary details. Tests assembled unit for proper performance, makes further adjustments, if necessary and gets assembled if examined by appropriate authority before handing over to production. Checks, adjusts and lubricates equipment periodically or gets it done and performs other tasks to maintain plan in proper working order. May maintain records of parts examined, repairs done, replacements made and plant performance. May erect and install equipment under the guidance of Chemical Engineer.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.1200

Millwright

Mill Wright; Mechanic Maintenance, General repairs and overhauls workshop machines and equipment periodically and on break downs to maintain them in working condition. Examines machines and equipment to ascertain nature and location of defects. Dismantles unit partly or completely using hand tools, adopters, twists, dollies, roller etc., as necessary, at spot or after shifting to mill wright section according to nature of defects and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

removes damaged and worn out parts. Obtains replacements or repairs defective parts by re-metalling, chipping, machining, filing, scraping, drilling, screwing, grinding etc. and assembles them with supplementary tolling as necessary ensuring accuracy of fit, alignments, prescribed clearances and functional efficiency. Tests reassembled equipment and makes necessary adjustments. Installs machines and equipment in correct position and aligns power shifting and pulleys using plumbs bobs, thread line spirit level etc. as necessary. Checks, adjusts and lubricates equipment periodically or directs helper to do so and maintains them in working order. May work in various industries on plant and equipment peculiar to those industries. May specialize in repairing particular types of machines or equipment in premises.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.1300 Mechanic, Pump

Mechanic Pump repairs all types of pumps such as centrifugal, plunger types etc., according to specifications for pumping water, oil, air etc., Dismantles pump using hand tools and examines mechanism to locate faults or damage, Repairs defective parts or obtains replacements, sets them in position and assembles pump. Tests reassembled or repaired unit for pressure, leakage etc., makes necessary adjustment and observes performance for appropriate yield of air, oil or water. May erect and install pumps at site and connect to motor power. May locate

faults to electric system motor repaired such as rewinding of field coils or armatures by Electrician or Armature Winder. May specialize in repairing centrifugal or reciprocating pumps.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.1301 Plumber (Pumps and E/M Mechanic)

Plumber (Pumps and E/M Mechanic) is responsible for installation and repair of Pumps and E/M equipment used for different plumbing applications of housing, commercial and institutional setups.

Qualification Pack Details:

QP NOS Reference	PSC/Q0111
QP NOS Name	Plumber (Pumps & E/M Mechanic)
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.1400 Mechanic, Dairy Maintenance

Mechanic, Dairy Maintenance repairs and services dairy equipment to maintain them in working condition. Repairs and services bottle and can-washers, soakers, butter and cheese packing and sealing equipment, pasteurizers milk evaporators, etc. replaces defective wiring, burnt fuses,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

worn switches and connects electric motors. Repairs and installs pumps, fits water and gas pipes and repairs leaky joints by general fitting operation, using hand tools or by simple welding, as necessary. May clean and re-assemble refrigeration units, regulate boiler supply pressure and mend leaky steam pipes and joints by simple welding.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.1500 Mechanic, Mining Machinery

Mechanic, Mining Machinery repairs services and overhauls drilling, scraping, cutting, winding, hoisting and other mining machinery for correct performance. Gets defective machine or equipment removed from surface or underground working place to repair section, using slippers, roller, hoists etc. as necessary. Examines faulty equipment to ascertain nature and location of defects. Dismantles equipment partly or completely to remove damaged and worn out parts. Repairs parts by various mechanical processes such as remetalling, filing, chipping, scrapping, grinding etc. or obtains replacements. Assembles parts, doing supplementary tooling as necessary and ensures correct fit, movement, clearance, adjustments, functional operations etc. as specified. Tests reassembled equipment making necessary adjustments for optimum performance. Checks, adjusts and lubricates equipment periodically or gets it done and performs other tasks to keep equipment in good working order. May

undertake minor repairs at working place. May weld, braze or solder parts.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.1600 Mechanic, Textile Machinery

Mechanic, Textile Machinery repairs services and overhauls weaving, spinning, hosiery and other textile machines and equipment to maintain them in working order and ensure correct performance. Examines equipment to locate defects. Dismantles equipment partly or completely according to nature of defects and removes damaged or worn out parts. Repairs defective parts, if possible, by various mechanical processes such as remetalling, riveting, filing, grinding, scraping etc. or obtains replacements. Assembles parts doing supplementary tooling as required to ensure accuracy of fit and specified functions. Tests reassembled equipment and makes necessary adjustments for required performance. Checks, adjusts and lubricates equipment periodically or gets it done and performs such other tasks to keep machinery in good working order. May keep record of parts examined and equipment performance. May weld, braze and solder parts. May erect and install textile machinery and equipment. May operate lathes, milling and smoothening machines and perform general fitting work. May specialize in particular type of textile machinery such as carding, spinning, weaving, sizing etc.

ISCO 08 Unit Group Details:

Code 7233

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.1700

Mechanic, Printing Machinery

Mechanic, Printing Machinery repairs, services and overhauls printing machinery such as linotype, monotype, rotary, letter press etc. for efficient performance. Examines faulty equipment to ascertain nature and location of defects. Dismantles equipment partly or completely to remove damaged or worn out parts using hand tools, hoist etc. as necessary. Repairs parts by filing, grinding etc. or obtaining replacement. Assemble parts, doing supplementary tooling such as filing, drilling, grinding etc. as necessary and ensures accuracy of fit. Operates and tests reassembled machine, makes necessary adjustments and ensured that types are uniform and it is running to specified accuracy. Checks, adjusts and lubricates equipment periodically or gets it done and performs other tasks to keep it in good working condition. Ensures that lead casting chamber, type casting unit and plunger mechanism of unit are functioning properly to cast type of required specification. May remove heavy machines and machine units from assembly line using hoisting equipment for heavy repair. May operate printing machines on job work. May specialize in servicing particular type of printing machines such as mono-casting, line casting, rotary press, treadles, binding machines etc. May keep record of parts examined and equipment performance. May be designated according to machine on which engaged such as MONOTYPE, LINOTYPE, INTER-TYPE, LITHO-BINDRY MACHINE.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.1800

Mechanic, Sewing Machine

Mechanic Sewing Machine; Sewing Machine, Repairman examines, adjusts repairs and services sewing machines for proper performance. Examines faulty machines to ascertain nature and location of defects. Dismantles machine partly or completely to remove damaged and worn out parts. Repairs defective parts or obtains replacements. Assembles parts and tests machine for desired performance by making necessary adjustments of position of screws, nuts, levers, needle bar, rockers, etc. Stitches, trial piece of cloth and makes further adjustments, if necessary. Cleans and oils machine periodically for smooth performance. May specialize in overhauling and repairing domestic and power driven commercial and industrial sewing machines. May visit residences or premises to repair domestic sewing machines at spot.

Qualification Pack Details:

QP NOS Reference	AMH/Q1901
QP NOS Name	Machine
	Maintenance
	Mechanic-Sewing
	Machine

NSQF Level

5

ISCO 08 Unit Group Details:

Code 7233

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.1900 **Lamp Repairman, Mines**

Lamp Repairman, Mines Lamp Cleaner/Mines; Lamp Fitter, repairs, tests, cleans and changes safety lamp used underground by miners. Checks safety lamp parts such as gauge, chimney, glass, wick, asbestos washer and fuse, head ring, cables, etc., in case of electric safety lamp for defects. Repairs or replaces parts and tests lighted lamp for safety by blowing round top and bottom of gauge and glass to ensure that flame is not exposed. Cleans safety lamps by holding them against felt lined rotating wheel, adds chemicals and changes small batteries after each shift. Issues lamps locked and lighted to miners and receives them back on return. May keep record of number of men underground by number of lamps issued.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.2000 **Mechanic, Repairman (Domestic Appliances)**

Mechanic, Repairman, Domestic Appliances services and repairs all types of small machinery and mechanical appliances generally in domestic use by replacement and repairs of worn or damaged parts to ensure correct performance. Examines small machines and appliances such as heaters, geysers,

coffee grinders, gramophones, pressure cookers, stoves etc. to ascertain nature and location of defects. Dismantles equipment partly or completely to remove or replace damaged or worn out parts. Repairs defective parts by setting washers, filing, soldering, riveting etc. or obtains replacements. Assembles parts to make complete unit ensuring accuracy of fit by supplementary tooling as necessary. Tests reassembled equipment and adjusts nuts, screws etc. as necessary to ensure its correct performance, fits assembly frames or structures, installs appliances in premises and gives power or water connections. Checks, cleans, adjusts and services equipment periodically to maintain them in working order. May specialize in repairing particular type of machine or equipment. May work in workshop, factory, outdoor station or at customer's residence.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.2100 **Fitter, Stationery Steam Engine**

Fitter, Stationary Steam Engine fits and assembles parts according to manufacturer's instructions and assists Mechanic steam Engine in his work. Examines drawings and other specifications, checks parts for flaws and accuracy of fit using gauges, micrometres and other measuring instruments and removes defects by chipping, filling, scraping, grinding, drilling and other supplementary tooling as necessary. Assembles parts as directed using screw drivers, pliers, spanners etc. tests completed equipment and makes

necessary adjustments under guidance of Mechanic Steam Engine. May oil and lubricate engine parts. May braze and solder parts and assist in installing equipment.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.2200

Fitter, Marine

Fitter, Marine repairs, services and overhauls engines and accessories of ships, boats etc., under guidance of MARINE ENGINEER. Examines drawings and other specifications. Checks and measures parts for flaws and other accuracy of fit using gauges, micrometres etc., and removes defect by chipping, filing, scraping, grinding and does other supplementary tooling as necessary. Assembles engines and auxiliary machinery in position using hoisting equipment and other tools. Tests completed assembly and makes necessary adjustments. Dismantles partly or completely such machinery in ship as propelling machinery, steam diesel or electric auxiliaries, pumps, cargo-handling machinery anchor-handling gear, ventilating and firefighting equipment, steering gear etc., removes and replaces worn or damaged parts and reassembles them as per drawings under guidance of Marine Engineer using hand and portable tools. Installs below deck auxiliaries such as evaporators, stills, heaters, pumps, condensers and boilers and connects them to steam pipe systems. Tests and inspects installed machinery and equipment during dock and sea trials and removes defects, if any. May attend to

minor electrical defects. May assist in keeping watch on engine, boiler and other machinery and assist in their operation.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.2300

Fitter, Railway Carriage and Waggon

Fitter Railway, Carriage and Waggon checks repairs and sets various metal parts and units of railway coaches and wagons to locate damage or worn out parts. Strips off wooden and metal fixtures, removes outer shell or coach and places it on wooden block using hoisting equipment. Removes under-carriage frame, bogey, wheel assembly, vacuum units, springs, buffers etc. as required. Gets bogey completely cleaned by Khalasis, examines it for damages, cracks etc. and replaces cross members damaged and worn out parts of body using hand tools. Checks pivot pins, side bearings, etc. to set and maintain necessary clearances. Checks condition of springs, brake fittings, buffers, etc. and repairs or replaces worn out and damaged ones. Tests vacuum unit for vacuum pressure over testing machine, changes defective parts and resets them. Cleans and inspects wheel bearing and replaces them where necessary. Gets wheel machined, faced and tyre set and refits wheel assembly using new parts such as keyways, guides, space bars, etc. Examines condition of coach work and replaces worn or corroded frames with new ones. Fits various fittings to coaches such as doors, windows, lamp and fan brackets, locker,

water closet fittings, places repaired or overhauled coach over bogey using overhead crane, fastens and fits bogey to coach by tightening bolts, nuts space bar, connecting rods etc. and aligns and fits metal frame and doors to waggons. May specialize in erection of new coaches or waggons or in conducting their periodical overhauling. May attend to repairs of coach and wagon buffers, vacuum brakes etc. May keep record of parts examined.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.2400

Fitter, Loco

Fitter, Loco repairs locomotives and sets them to working condition according to instruction and guidance of Loco Foreman. Examines drawings and other specification, checks parts for defects and accuracy of fit, using gauges, micrometres and other measuring instruments, Dismantles units and components partly or completely to remove damaged or worn out parts and repairs them or obtains replacements. Assembles parts, doing supplementary tooling as necessary to ensure accuracy of fit. Uncouples all parts and mechanism from wheel assembly fitted to engine chassis or frame to get boilers mounted on frame free from wheels. Directs Crane Operator to lift and places engine frame along with boiler over wooden stand or blocks. Sends wheel assembly and connected parts to machine shop for repairs or reconditioning of wheels, cross bars etc. Unscrews nuts and bolts and removes all boiler mounting such as safety valve, gland steam fountains, whistle pipes,

smoke box fittings etc. Unscrews nuts and bolts and removes all boiler mounting such as safety valve, gland stem fountains, whistle pipes, smokes box fittings etc. Lifts boiler from frame by crane and sends it to boiler section for repairs and servicing. Examines engine frame for damage, cracks and other defects and marks area for welding, riveting etc. as required. Checks piston, valves, cylinder etc. and gets cylinder bored to specific accuracy. Repairs valve assembly, fits new rings and assembles all parts and units according to specifications under guidance of Loco Supervisor/Foreman. Tests reassembled parts, units for components and makes necessary adjustments. Checks, adjusts and lubricates parts and joints periodically or directs helpers to do so and performs other tasks under guidance of Loco Foreman to keep loco engine and equipment in good working order. May keep record of parts examined and equipment performance. May specialize in steam or diesel engine. May specialize in repairing, servicing and overhauling of particular units or components.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.2500

Loco Cleaner

Loco Cleaner; Cleaner Railway cleans loco engines and performs allied tasks in loco-shed. Cleans engine and its parts using waste cotton and kerosene oil. Applies white chalk or lime stone solution on cleaned parts and strikes with hammer to check cracks if any. Moves engine backward or forward with help of crow-bars and turns it by pushing it on

mechanical device when required. Lights up firebox, shovels coke in it. Drops fire by shaking handle of fire-grate or operating lever in engine and performs other tasks as guided. May oil and lubricate engine parts. May be designated as ENGINE LIGHTER if engaged only in lighting up engine boiler and as FIRE-DROPPER, ENGINE if engaged in dropping fire from firebox of engine after completion of journey.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.2600**Fitter, Bicycle**

Fitter, Bicycle: Cycle Repairer repairs and overhauls pedal cycles, perambulators etc. by replacements, setting and adjusting parts to keep them in good working condition. Examines bicycle to ascertain nature and location of faults. Dismantles bicycle partly or completely to remove damaged and worn out parts. Repairs defective parts or obtains replacements and refits components in order of sequence. Adjusts brakes, driving chain mechanism, wheels, handle bars etc. for correct alignment. Fixes attachments such as saddle, bells, luggage carrier and lamp to assembled cycle and tests performance on road. Cleans, oils and greases moving parts; patches punctured tubes and repairs tyres. May cut threads where necessary with taps and dies.

ISCO 08 Unit Group Details:

Code 7233
Title Agricultural and Industrial Machinery Mechanics and Repairers

7233.2700**Fitter, Signal**

Fitter, Signal: Mechanical and Electrical Signal Maintainer (Railways) tests, over hauls and installs all mechanical and electrical signal equipment other than interlocking and station master's slide control frames and maintains them in working order to prevent failure and detention of rail traffic. Issues disconnection notices, as prescribed for repairs and adjustments. Attends to all failures of signal mechanism, locates and rectifies defects expeditiously, removes jamming of locking device by oiling, taping or other external means without opening cover and takes appropriate measure to prevent recurrence. Tests facing point, locks detectors, electrical points and signal mechanism regularly while on maintenance rounds and ensures that cover, of locking boxes of station masters slide control room are not removed except in presence of Signal Inspector. Cleans signal glasses, checks focus of signal and colour lights periodically, sets and keeps them correctly focussed and ensures that they are properly maintained, batteries cleaned and charged periodically at regular intervals and no one does any repairs or adjustments without his guidance. Undertakes new installation and carries out alterations and modification under guidance of Signal Inspector. Submits fortnightly reports, informs about programmes to Station Masters concerned, and maintains necessary records such as failure book, inspection book, muster roll attendance register, material indented and received etc. Prevents wastage and guides and controls men placed under him. May specialize in electrical or mechanical and signal equipment.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.2800

Agriculture Engineering Technician

Agriculture Engineering Technician maintains, services, repairs or overhauls different farm equipment such as Tractors, Power tillers, Sprayers, Drillers, etc. Receives instructions from Senior Engineers. Studies standing duty chart, sketches, blue prints, etc. and decides methods of work to be adopted. Draws necessary stores, examines their suitability, issues them to respective workers. Instructs and guides his subordinates on machines and tools to be used, accuracy required, process of work and other details to ensure correct repairs or overhauling. Checks completed work, makes necessary adjustments or replacements. Guides farmers in proper use and upkeep of farm equipment. Lends machines on hire to farmers. Sells spare parts of farm machinery and implements. Prepares contour maps by taking levels and plane table surveying. Examines land and prepares estimates for reforming the land to make it suitable for cultivation. Prepares plans for field channels for surface and sub-surface drainage. Provides bench terraces in hill areas and guides installation of sprinkler irrigation equipment and accessories. May design and fabricate agricultural machinery. May also sell pesticides and fertilisers.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.2901

Fitter: Hydraulic and Pneumatic System

Fitter Hydraulic and Pneumatic System does regular upkeep of Hydraulic/Pneumatic equipment/system, checking of hydraulic medium (hydraulic mineral oil), air under pressure and rectifying breakdowns including; identifying problems, dismantling equipment, cleaning parts, rectifying root causes, re-assembling equipment, checking alignment, vibration etc. to ensure fitness of equipment prior to hand over and informing supervisor, operations, stores, etc. as appropriate in hydraulic and pneumatic system.

Qualification Pack Details:

QP NOS Reference ISC/Q0810

QP NOS Name Fitter: Hydraulic and
Pneumatic System

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

7233.9900

Machinery Mechanics and Fitters, Other

Machinery Mechanics and Fitters, other perform number of routine and low skilled tasks in overhauling and repairing engines, pumps machines, etc., (other than Electrical and Precision Instruments) such as dismantling defective parts, cleaning

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

components, adjusting parts and are designated as Refrigeration Mechanic Helper, Maintenance Mechanic Helper, etc. according to type of work done.

ISCO 08 Unit Group Details:

Code 7233

Title Agricultural and Industrial
Machinery Mechanics and
Repairers

equipment; making and repairing musical instruments; making jewellery and precious metal ware; making pottery, porcelain ware, ceramics and glassware; painting and decorating various articles; producing handicraft articles in wood or textile, leather and related materials; performing printing or book-binding tasks. Supervision of other workers may be included.

Family 7234

Bicycle and Related Repairers

Bicycle and related repairers fit, maintain, service and repair the mechanical and related equipment of bicycles, rickshaws, baby carriages, wheelchairs and similar non-motorized transport equipment.

Sub Division 73

Handicraft and Printing Workers

Handicraft and Printing Workers make and repair precision instruments, musical instruments, various articles such as jewellery, precious metal ware, ceramics, porcelain ware and glassware, as well as handicrafts made of wood or textile, leather or related materials, or they perform printing or book-binding tasks.

The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product. Tasks performed by workers in this sub-major group usually include: making and repairing nautical, meteorological, optical and other precision instruments and

Occupations in this Sub Division are classified into the following Groups:

731 Handicraft Workers

732 Printing Trades Workers

Group 731

Handicraft Workers

Handicraft workers combine artistic and manual skills to design, make, repair, adjust, maintain and decorate precision instruments, musical instruments, jewellery and other precious-metals, pottery and porcelain ware. They apply traditional and/or recently developed techniques to carve, mould, assemble, weave and decorate various glass, ceramics, textile, straw, stone, wood and leather articles.

Occupations in this Group are classified into the following Families:

7311 Precision Instrument Makers and Repairers

7312 Musical Instrument Makers and Tuners

7313 Jewellery and Precision Metal Workers

7314 Potters and Related Workers

7315 Glass Makers, Cutters, Grinders and Finishers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7316	Signwriter, Decorative Painters, Engravers and Etchers
7317	Handicraft Workers in Wood, Basketry and Related Materials
7318	Handicraft Workers in Textiles, Leather and Related Materials
7319	Handicrafts Workers, Not Elsewhere Classified

Family 7311

Precision Instrument Makers and Repairers

Precision-instrument makers and repairers make, calibrate, repair, maintain, adjust and install mechanical watches, clocks, nautical, meteorological, optical, orthopaedic and other precision instruments and equipment and set them for correct performance.

7311.0100

Mechanic Precision Instrument, General

Mechanic, Precision Instrument General tests, repairs, overhauls and assembles various precision instruments and their parts for efficient performance. Examines instrument for defects. Dismantles components and cleans them in appropriate fluid such as petrol, kerosene etc. to find out extent of damage or wear and tear to parts. Removes minor defects of parts by grinding, filing, drilling, etc. and replaces worn out and damaged parts. Adjusts position of various parts using screwdriver, spanner etc. and assembles instrument to form complete unit. Makes simple electrical connections, solders contact points and performs other tasks as necessary. Tests performance either by visual observation or by conducting simple electrical and mechanical tests and ensures that

repaired or assembled instrument conforms to prescribed efficiency. May make new components and assemble new instruments. May specialize in any particular type of instrument like mechanical, hydraulic, pneumatic, electrical, optical, orthopaedic etc.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.0101

Technician Instrumentation

Technician Instrumentation dismantles removes and replaces a range of instruments and faulty peripheral components down to unit and component level, setting up test equipment, troubleshooting components of instruments, calibrating them and also preparing service reports and accurately documenting parts replacement and repair.

Qualification Pack Details:

QP NOS Reference CSC/Q0802

QP NOS Name Technician
Instrumentation

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.0200

Watch Repairer

Watch Repairer cleans repairs and adjusts clocks, watches and time pieces for accurate time keeping. Examines watch pieces or clock mechanism using

magnifying eyepiece to locate defects. Opens watch and disassembles components or parts of watch such as main spring, hair spring, balance staff etc. using special screw drivers, tweezers, pincers, and other watch makers tool. Cleans part with benzene or other cleaning solution using special brushes. Checks, jewels, spring, pinion joints pivots, balance staff etc. and determines their serviceability. Repairs or replaces broken or damaged parts and assembles watch step by step in proper sequence ensuring desired performance of each component. Lubricates pivots and operating components with thin special type of oil and soaks extra oil using pith sticks. Winds watch, observes performance and sets it with chronometer or accurate watch to regulate timing. Makes necessary adjustments after set period and regulates timing both in horizontal and vertical positions to ensure accurate time keeping. Is designated as Watch Maker if able to make balance staff pivots etc. operate watchmakers lathe and overhaul chronometers, self-winding, electric and other types of special watches and clocks. May operate cleaning machine to clean delicate parts in petrol and special solutions.

ISCO 08 Unit Group Details:

Code 7311
Title Precision Instrument Makers and Repairers

7311.0300

Assembler (Clock and Watch)

Assembler (Clock and Watch) assembles and installs chime-controlling mechanisms in master clocks according to blueprints and sketches, using watchmaker's tools: Bolts mounting casting which houses clock and chimes mechanisms to inner rear

panel of master clock case. Installs toggle switch and cut-off secondaries, for opening and closing chime-mechanism circuit, on panel, and makes wire connections. Disassembles, examines, repairs, or adjusts spring-wound clock, and reassembles clock adding strike-control parts, such as hour-strike spring to hour mechanism, night-spot cut-out to hour hand sleeve-wheel, and minute-mercury ring to minute mechanism. Bolts assembled clock mechanism in position on mounting casting. Assembles parts, such as dial, hour and minute hands, contact springs, motor drum and condenser, and makes wire connections to complete master clock mechanism. Installs completed assembly into master clock case.

ISCO 08 Unit Group Details:

Code 7311
Title Precision Instrument Makers and Repairers

7311.0400

Mechanic Precision Instrument, Mechanical

Mechanic Precision Instrument, Mechanical makes, alters and adjusts mechanical instruments or mechanical parts of electrical and optical instruments by accurate milling, filing, grinding, lapping and other processes. Studies drawings or samples and examines precision instrument like balance, meters, pressure gauges etc. for defects. Dismantles instrument, cleans metal components in petrol, kerosene oil or otherwise and checks them to find out extent of damage and further serviceability. Makes new parts on lathe milling or other machines, if necessary. Sizes and fits metal parts by filing, scraping, grinding lapping etc. as

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

necessary and ensures their desired accuracy by checking with precision measuring instruments shadow graph and other highly perfect devices. Assembles parts to form complete unit. Gets electrical components repaired by Electrician. Fits electrical and optical parts to instrument and adjusts them as required. Tests repaired or assembled instrument for clarity or vision sensitivity, correct meter and scale readings etc. as required and ensures stipulated performance within prescribed limits. Makes necessary adjustments and seals meters to avoid manipulations. May specialize in particular type of instruments like balance, pressure gauges, meters, theodolites, etc. May make new instruments from blue prints.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.0401

Iron and Steel Fitter Instrumentation

Iron and Steel Fitter Instrumentation installs, dismantles, removes, replaces a range of components down to sub-assembly level right from pick up/unit point of measurement and linking either directly to the instrument or the instrument panel. This also involves making suitable slots on panel and fixing instruments and its associated parts under the supervision of Technician Instrumentation.

Qualification Pack Details:

QP NOS Reference ISC/Q0903

QP NOS Name Iron & Steel Fitter
Instrumentation

NSQF Level 3

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.0500

Viewer, Workshop

Viewer, Workshop; Examiner, Metal Working; Checker, Metal Working checks mechanical components, units, machines etc., at various stages of manufacture, assembly and erection and ensures that they are made to required specifications. Studies diagram, sketch etc., of product to be manufactured to determine its specification and other details. Examines product prior to and at various stages of manufacture to detect faulty material or bad workmanship. Measures and tests components for accuracy using gauges and other instruments and checks finished products, assembled or erected structures to ensure that they conform to drawings, samples or specifications. Marks defective units, components or parts for rectification or for rejection and approves finished products that conform to required standard and specifications. Removes minor defects or informs superiors if machines do not function properly or products do not come up to prescribed standard. Keeps record of production, indicating quantum of rejections or bad workmanship. May be designated according to nature of duties performed such as CYLINDER EXAMINER; TESTER, PIPES: etc.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.0600

Mechanic, Atomizer and Fuel Pump (Diesel)

Mechanic Atomiser and Fuel Pump (Diesel) repairs and sets atomisers and fuel pumps units of diesel engines, using testing and setting tool, for efficient performance. Dismantles fuel pump kit using different tools. Cleans various components in oil and examines them for wear and tear, damage etc. Replaces damaged or worn out parts with new ones. Assembles parts together to complete unit. Fits assembled or repaired kit on test bench with testing engine and gives various connections like fuel supply, pressure gauge etc. Sets machine speed and pressure and starts testing pump. Observes machine running at prescribed speed and collects oil output in calibrated test tubes. Ensures that output of oil is as per specifications and makes necessary adjustment to plunger sleeve of pump to get quantity of oil from each nozzle. Conducts face angle tests to pump oil at correct timing and rectifies defects, if any. Removes atomiser from pump, fits it to special testing machine and operates machines to see whether oil is ejected in fine spray under prescribed pressure. Changes nozzles where necessary. Disassembles governor mechanism of fuel pump, cleans it, oils and greases moving parts and sets it. May change governor diaphragm if necessary.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.0800**Mechanic, Optical Instrument**

Mechanic Optical Instruments repairs and sets optical instruments such as

microscopes, telescopes, binoculars theodolites, photography cameras, sextants etc. for enlarged view photography for recording accurate measurements, etc. by checking the centre, setting lenses to required focal length and adjusting other components to required perfection. Examines optical instruments for defects visually or by focussing it to standard observations. Examines parts or components for wear and tear, damages etc. and replaces unserviceable ones. Repairs parts, where possible, by filing, grinding, scrapping etc. and fits new or ground lenses, mirrors and other accessories according to prescribed focal lengths and specifications. Grinds glazes and cements (joining of two lenses with Canada balsam to form one unit) lenses used in optical instruments such as microscopes, telescopes, gun sight photographic equipment, etc. to obtain correct lens assemblies Aligns parts to requirement and assembles components to form complete unit. Makes necessary settings and adjustments to instruments and tests to repaired unit for clarity and efficiency by visual observations or by using them over fields to ensure desired result and accuracy. May assemble and fit new equipment. May be designated as CAMERA REPAIRMAN OR PHOTOGRAPHIC EQUIPMENT ASSEMBLER AND REPAIRMAN if solely engaged in repairing and assembling photography cameras and allied gadgets and equipment.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.0900**Calibrator, Glass**

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Calibrator, Glass calibrates measuring and detecting glass instrument such as pipette, burette, hydrometer, thermometer etc. according to set standards by direct experiments for recording correct readings. Sets and connects master (standard) measuring instrument with water or appropriate fluid supply line and connects instrument to be calibrated with master using rubbers or glass tubing with stop cocks. Allows measured quantity of liquid to flow into master measuring instrument, sets level at zero by adding or flowing out extra liquid as necessary, transfers contents completely into instrument to be calibrated by operating stop cock and marks position of zero level on it with paint, ink or coloured pencil. Marks different levels similarly by adding measured quantity of liquid first into master and then transferring whole lot into instrument to be calibrated. Heats or cools mercury, alcohol, sensitive metal foil or other appropriate indicator filled in thermometers and thermal recording instruments carefully through measured degree of temperature and suitably marks position of observations recorded on glass body of instrument. Calibrates intermediate position by dividing machine calculators or by actual experiments as necessary. Removes provisional calibrated instrument and makes permanent marking as recorded by process of etching or on pantograph machine. May etch calibrated glass with hydrofluoric acid.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.1000

Calibrator (Instrument and Apparatus)

Calibrator (Instrument and Apparatus) tests and calibrates controlling, indicating, and measuring instruments and devices, such as monochromators, pressure regulators, tachometers, temperature controls, and thermometers, to ensure specified operating performance, using hand tools, testing and calibrating instruments and equipment, and precision measuring instruments: Reads quality control manual and testing specifications to obtain data to test or calibrate specific devices. Selects and installs accessories, such as adapters, indicating gauges, or holding devices on test or calibration fixture, and connects instrument or device to fixture, according to specifications, using hand tools. Sets controls to regulate factors, such as current flow, timing cycle, pressure, temperature, or vacuum, according to specifications, and activates test or calibration equipment. Observes readings on meters and gauges, and other displays and performance of the device or instrument to identify functional defects and determine calibration requirements. Adjusts calibration mechanisms to obtain specified operational performance of the device or instrument, using hand tools and precision measuring and calibrating instruments and equipment. Applies sealing compound on calibration mechanism to prevent readjustment of settings and loss of calibration. Rejects malfunctioning devices and routes devices to specified department for rework or salvaging of parts. May disassemble instrument or device to determine cause of defective operation and notify supervisory personnel of findings.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7311.1001

Calibration Technician

Calibration Technician sets, adjusts, validates or verifies mechanical, pneumatic, hydraulic, electrical, electronic, measuring and control instruments using reference standards in accordance with predetermined standard procedures.

Qualification Pack Details:

QP NOS Reference CSC/Q0801

QP NOS Name Calibration
Technician

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and
Repairers

7311.1002

Calibration Engineer

Calibration Engineer tests and standardizes medical devices as per device manufacturer's specification or customer requirement. The individual at work compares the measurements of medical device with the master equipment and then certifies medical device as standardized or non-standardized as per device manufacturer's specification or customer's requirement.

Qualification Pack Details:

QP NOS Reference ELE/Q8002

QP NOS Name Calibration Engineer
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and
Repairers

7311.1100

Calibrator, Other

Calibrators, other calibrate metal wood and synthetic material seals for linear and angular measurements using pantograph, dividing or other sensitive machine according to specifications. Set sized object accurately on machine using precision instruments and holding devices like dial indicator, combination set, clamps, mandrill, etc. Fit template or necessary gadgets and cutter in machine. Set machine in relation to object according to divisions required and mark extreme positions. Operate machine as per template or calculation and machine markings to divide object into specified number of divisions by short and long cuts as required. Check object with set standard to ensure accuracy. May copy from sample or standard scale.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and
Repairers

7311.1200

Orthopaedic Appliances and Limb Technician

Orthopaedic Appliance and Limbs Technician; Orthopaedic Technician; Artificial Limb maker, Surgical makes and repairs artificial limbs, braces, and other orthopaedic appliance according to prescription. Makes cast of limb or deformity and draws patterns from measurements of body members to be fitted. Cuts and fashions devices from material, such as metal, plastic and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

leather, using welding equipment, forge, riveting machine, drill and hand tools; shapes leather parts over lasts and rivets parts to braces; pads braces with felt and sponge rubber; polishes completed devices, using buffing wheel; adjusts nuts and screws at joints to insure free movement. Repairs worn-out or damaged appliance. May harness devices to limbs or stumps, using knowledge of functional anatomy. May instruct patient in use of device. May be designated according to type of appliance being made as ARTIFICIAL ARM MAKER, FOOT MAKER.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.1400

Instrument Maker, Other

Instrument Makers, other (Except Electrical) include all other workers engaged in fitting, assembling, calibrating and repairing mechanical, hydraulic, optical and other types of instruments except electrical, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

7311.9900

Precision Instrument Makers and Repairers, Other

Precision Instrument Makers and Repairers, other perform number of low skilled and routine tasks such as dismantling instruments, filing, making connections, operating vacuum machine, soldering, sealing covers, cleaning lenses etc., and is designated as Instrument

Mechanic Mate, Instrument Mechanic Helper etc.

ISCO 08 Unit Group Details:

Code 7311

Title Precision Instrument Makers and Repairers

Family 7312

Musical Instrument Makers and Tuners

Musical-instrument makers and tuners make, assemble, repair, adjust, restore musical instruments and tune them to the required pitch with hand or power tools. They usually specialize in one type of instrument, such as string instruments, brass instruments, reed instruments or percussion instruments.

7312.0100

Musical Instrument Maker (String)

Musical Instrument Maker (Stringed) makes stringed instruments such as Sitar, Tambura, Violin and Veena from wood, ebonite, metal or other materials, using hand or power tools, selects and marks materials, saws out, drills, carves, shapes and finishes parts of instrument, glues or screws parts together; applies stain and several coats of varnish, attaches strings, pegs and other fittings; tests instrument and makes changes, if necessary to improve tone. May carve ornamental designs on instrument. May repair instruments. May specialize in making a particular type of instrument and be designated according to type of instrument made such as VIOLIN MAKER, VEENA MAKER, SITAR MAKER, ESRAJ MAKER.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7312

Title Musical Instrument Makers and Tuners

7312.0200

Harmonium Maker

Harmonium Maker makes harmonium by preparing different parts of instrument such as, cabinet reed board, keys, bellow and stoppers and assembling them using hand or power tools. Selects required type and size of wooden planks for making different parts of harmonium. Marks them with dimensions using tool rule, square, pencil, etc., and makes different parts by sizing, sawing and planing using carpentry tools. Assembles harmonium cabinet (wooden box) by nailing different parts together. Makes air compartment in inside bottom of box air-tight by gluing soft leather or strips along edges. Prepares bellow from card board by cutting card board strips and gluing with soft leather and coloured paper making necessary folds. Attaches bellow to harmonium cabinet by gluing and clamping it with nails and springs. Fixes necessary wooden bridge over air compartment in box. Prepares reed board by making required numbers of apertive and fixing reeds one side and rest pins on other sides. Makes necessary number of holes for different notes on reed board, fixes knobs for control of air from air compartment to apertives of reed board. Ensures that joints are air-tight by bellowing and reeds give proper tuning. Tests and adjusts harmonium to produce required tune by filing, (opening and closing reed tongues and comparing notes by striking tuning fork). May fix metal handles to cabinet, leather or plastic cloth over reed frame and other decorative fittings. May polish box and give smooth finish. May repair Harmonium by

dismantling and replacing different parts of instrument. May specialize in preparing particular parts of instrument.

ISCO 08 Unit Group Details:

Code 7312

Title Musical Instrument Makers and Tuners

7312.0300

Harmonium Key Maker

Harmonium Key Maker makes harmonium keys of required sizes by sawing, drilling, filing and smoothening soft wood and gluing celluloid strips on them. Selects soft wood pieces of required quality; marks, saws out curves and shapes wood to make harmonium keys according to specification; cuts celluloid strips of required size and glues it over wooden keys; screws keys to key board and fixes key board to wooden cabinet; drills holes on cabinet as per specification and designs and fits stoppers to control wind inside instrument; may fit reed frame to cabinet. May make bellows and fit them to instruments. May tune up instrument.

ISCO 08 Unit Group Details:

Code 7312

Title Musical Instrument Makers and Tuners

7312.0400

Harmonium Fitter

Harmonium Fitter makes inside of harmonium cabinet airtight by cutting and gluing soft leather strips along edges and fixing necessary fittings. Examines harmonium cabinets prepared by Carpenter are according to specification; cuts soft leather strips of required sizes and glues them to edges of cabinet; fits

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

wooden frame or bridges inside box for fixing reed frame, key board and other harmonium parts; glues and screws key board and reed frame to cabinet. Fits keys and other attachments in to position; tests instruments and makes necessary adjustments to prevent air leak. May polish and apply varnish to cabinet. May tune harmonium for correct note and pitch. May repair harmonium.

ISCO 08 Unit Group Details:

Code 7312
Title Musical Instrument Makers and Tuners

7312.0500

Bellow Man (Harmonium)

Bellow Man (Harmonium) makes harmonium bellows by measuring, cutting card board strips and pleating them with soft leather and coloured paper. Selects card board of desired thickness; marks and cuts groove or channel on card board at parallel lines to permit folding; folds card board along slit edges. Pleats to form bellows; covers bellows with satin and cloth; glues leather or rexine and places metal guards on corners of bellows and screws, nuts or glues bellow to instrument cabinet and operates leak; bellow to test air lead by playing notes; operates bellow to check proper operation. May tune harmonium reeds and glue reeds in reed blocks. May fabricate metal parts using shop machines and tools. May repair used harmonium.

ISCO 08 Unit Group Details:

Code 7312
Title Musical Instrument Makers and Tuners

7312.0600

Reed Fitter (Harmonium)

Reed Fitter, Harmonium makes wooden reed board according to sample or specification and fits metal reeds and strings on board with screws. Selects wooden board; marks and chisels out grooves or slots to fit reeds according to sample or specifications; fits and screws reeds in slots on board and fixes assembled reed frame to cabinet. Operates harmonium to check reeds to give out correct tune when concerned key is depressed. May tune harmonium. May make wooden cabinet and fit key board to box. May repair used harmonium and replace old reeds.

ISCO 08 Unit Group Details:

Code 7312
Title Musical
Instrument Makers and Tuners

7312.0800

Finisher (Harmonium)

Finisher, Harmonium gives finishing touches to harmonium by making and fitting stops for controlling air in harmonium and by cutting and fitting celluloid pieces for decorating cabinet. Examines assembled harmonium for any defect; polishes cabinet using colour stain and varnish to give required finish; fixes coloured celluloid strips on reed; fits wooden or plastic knobs to airholes and other attachments such as handles and decorative fittings. May make, assemble and fit various accessories to harmonium. May tune harmonium. May repair used harmonium.

ISCO 08 Unit Group Details:

Code 7312
Title Musical
Instrument Makers and Tuners

7312.1000**Organ Tuner**

Organ Tuner tests and adjusts organ pipes to produce correct tones and keeps playing mechanisms in good condition. Strikes tuning fork and compares tone with that of selected pipe. Adjusts distance between lips of pipe until tone coincides with that of tuning fork. Adjusts other pipes, comparing their tones by ear with that of pipe already adjusted. Replaces defective wiring, switches, blowers and other parts.

ISCO 08 Unit Group Details:

Code	7312
Title	Musical
Instrument Makers and Tuners	

7312.1200**Piano Tuner**

Piano Tuner tests and adjusts pianos to produce correct tone. Strikes tuning fork and compares tone with that of 'A' string of piano. Tightens or loosens strings by turning string pin until tone coincides with that of tuning fork. Adjusts other strings comparing their tones by ear with that of 'A' string already adjusted. May replace broken strings and make repairs.

ISCO 08 Unit Group Details:

Code	7312
Title	Musical
Instrument Makers and Tuners	

7312.1300**Tabla Maker (Musical Instrument)**

Tabla Maker (Musical Instrument) dome shaped wooden, metal or clay body open at one end. Collects cone or dome shaped wooden, metal or clay of required size

open at one end and other instrument parts such as soft leather of desired thickness, leather straps, cords, brass rings as necessary for type of tabla to be made; cuts and sizes leather to close mouth of reed and punches holes round edge of leather cover; places punched cover over mouth of vessel and passes leather straps through holes; inserts guides through leather straps and fastens leather cover to body and secures it tightly at bottom of vessel ties to a brass or leather ring; applies special ink mixed with special wax on central portion of leather top for proper tuning; tests tone of tabla by striking or drumming with fingers; tunes tabla to required pitch by tightening leather straps and changing position of guides. May repair and tune used tablas.

ISCO 08 Unit Group Details:

Code	7312
Title	Musical
Instrument Makers and Tuners	

7312.1400**Drum Maker, Musical**

Drum Maker, Musical makes musical drums by mounting animal skins on wooden or metal case open on one or both ends with metal rims and fitting adjusters to tune drum to required pitch. Collects wooden or metal case of desired size and specification; secures tightly leather or hide cover over metal or leather ring and fastens ring to mouth of shell with leather cord after fitting adjusters to it; adjusts tension of leather cover by moving adjusters. Applies special compound on middle of upper surface of leather cover where necessary for correct tune, tests and tunes instrument by striking cover surface with hand or stick adjusting adjusters for required tone

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

pitch. May specialize in making particular types of drum and be designated accordingly such as BRASS DRUM MAKER; SIDE DRUM MAKER; DHOLAK MAKER; MRIDUNG MAKER; TAVIL MAKER; KANJIRA MAKER. May use parchment leather for special type of drums. May repair drums by dismantling and replacing leather skins, tension rods, rims and shells.

ISCO 08 Unit Group Details:

Code 7312
Title Musical
Instrument Makers and Tuners

7312.1500

Clarinet Assembler

Clarinet Assembler makes clarinet by assembling mouth piece, shank, upper and lower pieces, bell and keys and tunes it to required pitch for correct tone. Collects parts such as springs, pins, keys, reed for making clarinet of desired type. Joins upper and lower part of body together; fits keys and other attachments in position; fixes reed to mouth piece through reed holder; tests instrument and makes changes, if necessary, to improve tone and tunes it to desired pitch with or without tuning fork. May repair used instrument. May be designated as FLUTE MAKER if engaged in making and tuning flutes.

ISCO 08 Unit Group Details:

Code 7312
Title Musical
Instrument Makers and Tuners

7312.1600

Bag Pipe Maker

Bag Pipe Maker makes bag pipes by assembling finished wooden organ pipes in specially designed leather bags. Collects wooden pipes and leather bag according to specification; prepares bag pipe reeds by shaving and filing cane of specified variety; fixes reeds in mouth piece through reed holders; tunes organ pipes for tone of desired pitch; cuts holes in leather bag and fits in finished wooden pipes in holes in proper position; secures pipes to bag tightly with cord to prevent leakage of air from bag; fastens brass and tenor pipes with cords and tunes pipes to ensure correct pitch and tone. May specialize in one or more operations, such as marking act in parts or organ pipes and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7312
Title Musical
Instrument Makers and Tuners

7312.1700

Brass Musical Instruments Assembler

Brass Musical Instrument Assembler makes required types of brass musical instruments by fitting piston valves, valve tops, bell etc.; in metal body. Collects different parts of musical instrument to be made; joins parts by screwing, riveting or soldering as necessary to obtain desired shape; fits piston valves, valve tops, springs, washers, etc. Checks leakage, brazing etc. and tunes it to required pitch by fitting slide or further tooling as necessary. May specialize in any particular type of brass musical instruments such as cornet, baritone, euphonium, bugle, trumpet etc.

ISCO 08 Unit Group Details:

Code 7312

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Musical
Instrument Makers and Tuners

therefrom and from zinc-makes air conduits of galvanised iron.

7312.1800 **Musical Instrument Repairer**

Musical Instruments Repairer repairs all kinds of musical instruments such as Violin, Veena, Tambura, Sitar, Harmonium, Guitar, Mandolin, Piano, and tunes them. Tests particular instrument to find nature of defect, dismantles instrument and examines parts for defects or damage. Repairs or replaces worn or damaged parts using hand tools, refits parts together to construct instrument; Sets repaired instrument for correct performance, tunes instruments by playing it and adjusting keys, strings, etc. May polish with colour stain or varnish to give good finish. May make new parts to replace damaged ones using hand tools. May be designated according to type of instrument repaired, such as VIOLIN REPAIRER, VEENA REPAIRER, HARMONIUM REPAIRER, PIANO REPAIRER, etc.

ISCO 08 Unit Group Details:

Code 7312
Title Musical
Instrument Makers and Tuners

7312.9900 **Musical Instrument Makers and Tuners, Other**

Musical Instrument Makers and Tuners, Other include all other musical instrument makers engaged in making or assembling other types of musical instruments not elsewhere classified as: Organ Pipe Maker casts sheets of organ metal; makes pipes

ISCO 08 Unit Group Details:

Code 7312
Title Musical Instrument Makers and Tuners

Family 7313 **Jewellery and Precision Metal Workers**

Jewellery and precious metal workers design, fabricate, adjust, repair, or appraise jewellery, ceremonial or religious items, gold, silver, other precious metals, or gems. They cut, file, polish and set precious and semi-precious stones including gems and diamonds and engrave designs on jewellery and precious metal articles. They cut and polish diamonds for industrial purposes.

7313.0100 **Roller, Gold and Silver**

Roller, Gold and Silver makes silver and gold sheets of varied thickness by process of rolling. Adjusts roll gap of rolling machine by means of handle operating gearing system machine. Takes required weight and size of metal piece (caste and annealed if necessary) and carefully inserts it in between roller, keeping it pressed against bottom roller. Checks thickness of sheet after each rolling, reduces roll gap and repeats process until required thickness is obtained. Ensures that texture of sheet or foil does not get spoilt during rolling. May prepare sheets or foils manually by process of hammering and flattening. May anneal sheet or foil after rolling.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7313
Title Jewellery and Precision Metal Workers

7313.0101 **Jewellery Polisher**

Jewellery Polisher provides shine and lustre to the cast jewellery at different stages of its manufacturing such as pre-setting and final polish. The individual works with different types of tools, polishing compounds, soft and hard buffs fixed on high-speed rotating motor bench.

Qualification Pack Details:

QP NOS Reference G&J/Q3010
QP NOS Name Jewellery Polisher
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.0102 **Plater**

Plater applies a layer of Rhodium, on the surface of the jewellery piece. The individual operates the plating plant or runs the manual process for applying Rhodium on the finished jewellery piece for giving bright white and reflective appearance to the precious metal jewellery.

Qualification Pack Details:

QP NOS Reference G&J/Q3212
QP NOS Name Plater
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7313

Title Jewellery and Precision Metal Workers

7313.0103 **Filer and Assembler**

Filer and Assembler works with numerous hand and machine tools to remove sprues from the cast jewellery piece; rectify casting defects such as porosity, blisters, bubbles, and cracks; and assemble the final jewellery components meant for linking.

Qualification Pack Details:

QP NOS Reference G&J/Q2909
QP NOS Name Filer and Assembler
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.0201 **Wire Maker, Gold and Silver/Component Maker**

Wire Maker, Gold and Silver makes silver and gold wires of specified thickness by heating and drawing metal in specially designed machine. Takes gold or silver rod of required size and weight and heats it up (dull red) in mild fire. Beats one end of rod to narrow point and passes it through one of larger holes of sizing plate or die. Places plate with rod securely in gap of drawing machine. Holds protruding end of rod with tongs and anchors it suitably in roller chain. Sets speed, starts machine and removes anchor from chain as soon as rod has been pulled through and formed into wire. Repeats process by passing wire successively through smaller holes until required size is obtained. May draw wire

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

of desired thickness through series of dies (steel or diamond) of diminishing holes and wind it on manually or mechanically operated drum. May also make wire manually by beating rod in sized pattern or mould.

Qualification Pack Details:

QP NOS Reference	G&J/Q0606
QP NOS Name	Component Maker
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0202

Gem Stone Thread Maker

Gem Stone Thread Maker uses hands and fine needles to thread several beads or cabochon or faceted stones into a jewellery piece, as per design.

Qualification Pack Details:

QP NOS Reference	G&J/Q6909
QP NOS Name	Gem Stone Thread Maker
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0301

Gold Curer, General/Gold Refiner

Gold Curer, General; Gold Refiner, General extracts pure gold from impure state by chemical process. Adds double quantity of silver to gold (in impure state)

and melts them in charcoal or coke fired pit furnace. Quenches molten metal in water to form solid mass. Adds nitric acid and reheats in charcoal fired furnace to dissolve impurities and silver. Removes gold separated from impurities by filtration and washes it numbers of times in water. Re-melts washed gold to form bar of pure gold. Extracts silver in same manner by adding requisite quantity of copper to solution.

Qualification Pack Details:

QP NOS Reference	G&J/Q3414
QP NOS Name	Gold Refiner
NSQF Level	6

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0401

Gold Curer, Mint/Gold Melter and Refiner

Gold Curer, Mint; Gold Refiner, Mint refines impure gold by chemical process. Melts unrefined gold in furnace and injects chlorine into it. Removes Chlorides (chemical compounds of impurities with chlorine) thus formed by scoop and tongs and pours out purified gold. Re melts purified gold for testing fineness and sampling. Repeats process if necessary. May melt acid treated roasted precipitates of impure gold with oxidising agents and sand in steel trays on furnace, pour out molten gold into buttons and bar moulds and raise fineness of base bullion by refixing it using fair clay pipes and compressed air.

Qualification Pack Details:

QP NOS Reference	G&J/Q0404
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Gold Melter and Refiner
NSQF Level	7

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.0500 Gold Foil Maker

Gold Foil Maker makes gold foils from wires for setting jewels in ornaments. Moulds gold into small bar and gets it drawn into wire of required gauge. Cuts convenient length of wire, heats it to specified temperature in mild fire and flattens it to extent possible by beating it with hammer on anvil. Reheats it in controlled low fire, cools and cleans it in chemical or solution of lemon juice and water and repeats process of beating on anvil until it turns into thin paper like foil. Ensures at every stage that foil is not cracked or broken. May also prepare silver foils from wire, and is designated as SILVER FOIL MAKER.

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.0600 Leaf Maker, Gold and Silver

Leaf Maker, Gold and Silver beats small strips of gold and silver into thin leaves for medicinal purposes, dressing sweet dishes, etc. Cuts small strips of desired metal into suitable size and places them individually in between sheets of special type of skin bound together. Covers sheets of skin holding metal inside thicker

skin covering and beats them on anvil with wooden mallet. Checks extent of spreading frequently while beating and ensures that metal pieces do not get stuck to skin sheets. Removes metal leaves then formed and places them individually on fine paper sheets. May use special type of paper instead of skin for beating. May light small coal fire to remove moisture from skin and avoid sticking of metal leaves on skin sheets.

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.0700 Goldsmith

Goldsmith; Sonar prepares gold ornaments of required design and weight by heating, moulding, bending, drawing etc. Studies design or sample and takes required weight of gold by weighing in sensitive balance. Moulds piece of gold into small bars by heating on mild fire or takes required weight of sheet or wire according to design. Makes designed ornaments by stages using dies and hand tools, such as tongs, hammer, hand saw drill, file etc., and by heating metal according to necessity by means of oil lamp and blow pipe to facilitate working. Makes jewel setting arrangements (if so designed) in ornament uses lac as filling where necessary. Polishes ornament by cloth, special yarns, or buff. May make individual parts of ornament and finally join them together either by fusing them by heat or fixing them by wire. May also do jewel setting, enamelling (mina work) etc. May be designated as SILVERSMITH if employed in making silver wares and ornaments.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

QP NOS Name Goldsmith:
Enameller
NSQF Level 4

7313.0701

Polisher and Cleaner

Polisher and Cleaner finishes the jewellery frame and cleans it thoroughly in order to give the base frame the look that the design requires. Polishing is done at multiple stages of jewellery making with different types of materials or abrasives. Cleaning is also done at multiple stages of jewellery making using different types of techniques as applicable.

Qualification Pack Details:

QP NOS Reference G&J/Q0707
QP NOS Name Polisher and
Cleaner
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.0702

Goldsmith Enameller

Goldsmith: Enameller works on handmade gold jewellery manufacturing prepares enamel colours of different types to paint vibrant patterns on the finished jewellery frame as per design. The individual at work in handmade gold jewellery manufacturing prepares enamel colours of different types to paint vibrant patterns on the finished jewellery frame as per design.

Qualification Pack Details:

QP NOS Reference G&J/Q0909

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.0703

Goldsmith Frame Maker

Goldsmith Frame Maker, works with machine and hand tools to create the base jewellery frame from gold as per design and for further embellishing with components, gemstones and enamelling and plating. The goldsmith is responsible for delivering quality gold jewellery with minimum gold or stone loss.

Qualification Pack Details:

QP NOS Reference G&J/Q0606
QP NOS Name Goldsmith Frame
Maker
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.0801

Jewel Setter/Setter

Jewel Setter; Gem Setter sets jewels in ornaments according to design. Fixes jewels on wooden board or box by shellac according to design. Examines ornaments for jewel setting and makes necessary alternations if required. Lays ornament on table, heats shellac slightly on oil lamp, picks up jewels one at a time, sets them individually in pockets of ornament

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

designed for fixing jewels and securely locks each one of them by bending metal points over jewel or by overlapping system. Is designated as KUNDAN WORKER if engaged in setting jewels by pressing pieces of thin gold foils with tweezer and needle.

Qualification Pack Details:

QP NOS Reference	G&J/Q0808
QP NOS Name	Setter
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0802 Metal Setter

Metal setter works with numerous hand and machine tools to set diamond and gemstones as per design, and is responsible for delivering: levelled, damage-free and secured setting of stones while maintaining its brilliance.

Qualification Pack Details:

QP NOS Reference	G&J/Q3111
QP NOS Name	Metal Setter (Basic)
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0803 Wax Setter

Wax setter (basic) works with numerous hand tools to set diamond and gemstones as per design. The individual is responsible for delivering: levelled, damage-free and

secured setting of stones while maintaining its brilliance.

Qualification Pack Details:

QP NOS Reference	G&J/Q2707
QP NOS Name	Wax Setter
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0804

Wax Tree Maker

Wax tree maker works with different types of waxes, wax soldering machine and consumables in order to assemble wax pieces in a tree like structure.

Qualification Pack Details:

QP NOS Reference	G&J/Q2606
QP NOS Name	Wax Tree Maker
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0901

Gem Sorter

Gem Sorter; Jewel Sorter examines, selects and removes gems from rough stones by pincer. Lays pieces of rough stones on table. Cuts them in smaller pieces if necessary, examines them individually with magnifying glass and locates portion to be retained. Checks frequently portion to be cut and clips off surplus portion bit by bit by pincer or marks stones with Indian ink. Fixes them

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

in sockets in brass rod, using adhesive solution (sicotine, plaster of Paris etc.) for sawing. Eliminates white veins from corals and sorts pearls by shape and size.

Qualification Pack Details:

QP NOS Reference	G&J/Q0809
QP NOS Name	Sorter
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0902

Rough Assorter

Rough Assorter needs to divide rough diamonds into groups having similar characteristics, by looking at the rough through an eye glass under light, using his/her knowledge and experience. Each rough diamond is assessed according to its natural characteristics – judging specifically its colour, clarity, carat and model or shape.

Qualification Pack Details:

QP NOS Reference	G&J/Q4101
QP NOS Name	Rough Assorter
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.0903

Rough Marker

Rough marker needs to mark assorted rough diamonds manually, using a marker pen for various requirements like identification, windowing, cleaving, laser or blade sawing, bruiting, etc. A marker

needs to use his/her experience and make precise marking as the accuracy of the following process depends on the accuracy of the marking. The marking must be made with the objective of maximizing the value, or any other as fixed by the company.

Qualification Pack Details:

QP NOS Reference	G&J/Q4101
QP NOS Name	Rough Marker
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1001

Gem Slicer/Gemstone Rough Cutter

Gem Slicer cuts jewels for sizing by using thin rotating cutter. Applies cutting solution (solution of Multan clay, corundum and diamond powder) on cutter. Directs Lapidary Helper to rotate driving wheel at steady speed. Holds stone or jewel carefully with fingers, presses it against cutter, applies cutting solution frequently and cuts jewels as required. Checks stone or jewel frequently while cutting to ensure proper sizing. May slice jewels by machine having number of cutting blades. May also extract jewels from rough stone by slicing. Is also known as DIAMOND SAWYER if employed in sawing diamonds.

Qualification Pack Details:

QP NOS Reference	G&J/Q6505
QP NOS Name	Gemstone Rough Cutter
NSQF Level	3

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7313

Title Jewellery and Precision Metal Workers

7313.1101

Gem Cleaver

Gem Cleaver cuts or cleaves precious stones, previously marked, using knife and hammer. Sets marked stone in dop with shellac and fixes dop on cleaving table. Makes groove along marked line with another diamond tool. Places cleaving knife on groove and carefully strikes with small hammer to split stone into two parts of required specifications. May repeat process if further splitting is required.

Qualification Pack Details:

QP NOS Reference G&J/Q4404
QP NOS Name Gem Cleaver
NSQF Level 5

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1201

Inclusion Plotter

Inclusion plotter uses different technologies such as M-Box, Immersion Glass (IG) and Galaxy, based on Helium/Sarin software, to view and manually or automatically plot different types of inclusions such cloud, surface cavities, blind spots, pin point inclusion, 3D, flat cracks, curved cracks. Inclusion plotting helps the planner determine what can be achieved in the cut stone, which will determine its ultimate value. Hence, precision is important in this job.

Qualification Pack Details:

QP NOS Reference G&J/Q4202
QP NOS Name Inclusion Plotter
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1202

Planner

Planner uses the designing software and planning and marking machines to decide where to mark the diamond rough for generating the most profitable polished diamond for the company as per its policy of maximizing value or colour and weight retention.

Qualification Pack Details:

QP NOS Reference G&J/Q4202
QP NOS Name Planner
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1300

Gem Grinder, Hand

Gem Grinder, Hand; Jewel Grinder Hand; Lapidary, Hand grinds jewels to designed shape and size by hand operated grinding wheel. Embeds jewels on bamboo stick with shellac. Rotates grinding wheel backwards and forwards by operating bow with right hand. Applies water on wheel and grinds stone by pressing it against side of corundum grinding wheel. Checks

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

stone frequently by sight and continues grinding until required shape and size is obtained. May hold bigger sized stones directly by left hand, grind it to shape and size by manipulation of fingers.

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1301 **Manual Bruter**

Manual bruter works on the doped diamond to be girdled and holds it against a second diamond spinning in opposite direction to slowly round it into a cone shape. A bruter must be careful: so that excess bruting does not cause too much stone loss or sub-optimal bruting causes the girdle to disappear at a later stage of processing.

Qualification Pack Details:

QP NOS Reference G&J/Q4505
QP NOS Name Manual Bruter
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1302 **Auto Blocker**

Auto Blockers work with the auto-blocking machine and make the basic four (or eight) bottom and top facets of a diamond in order to make it ready for final polishing or brilliance. For auto blocking, the stone is set in a dop is fixed in the auto-blocking machine and held down on a revolving cast-iron scaife charged with diamond dust.

Qualification Pack Details:

QP NOS Reference G&J/Q4606
QP NOS Name Auto Blocker
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1303 **Gemstone Facet Maker**

Gemstone Facet Maker works with high-speed and angle indexed rotating scaife machines with diamond or steel laps in order to grind facets on, mainly, transparent gemstones.

Qualification Pack Details:

QP NOS Reference G&J/Q6707
QP NOS Name Gemstone Facet Maker
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1304 **Table Cutter**

Table cutter works with table dop tang system and make the first, biggest and the most important facet of a diamond by polishing it on the polishing wheel or scaife in order to yield maximum brilliance and symmetry. It is very important to polish the table accurately as it is only through this facet that the light of the diamond can be seen.

Qualification Pack Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Reference G&J/Q4606
QP NOS Name Table Cutter
NSQF Level 3

QP NOS Reference G&J/Q4505
QP NOS Name Auto Bruter
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1305 Manual Blocker

Manual Blocker creates the basic four or eight bottom and top facets on the bruted diamond using the dop-tang system on the polishing diamond-dust charged scaife in such a way as to yield maximum brilliance and symmetry. The diamond is set either in a lead dop or a mechanical-clamp.

Qualification Pack Details:

QP NOS Reference G&J/Q4606
QP NOS Name Manual Blocker
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1306 Auto Bruter

Auto Bruter works with bruting machine and another diamond or wheel (rotating in opposite direction to the diamond being bruted) to give the rough diamond round and cone shapes. A bruter must be careful: so that excess bruting does not cause too much stone loss or sub-optimal bruting causes the girdle to disappear at a later stage of processing.

Qualification Pack Details:

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1400 Gem Polisher, Hand

Gem Polisher, Hand polishes gems according to specification by special manually or mechanically operated polishing wheels. Holds jewels by shellac on small bamboo stock, Fits required type of polishing sheet (lead for soft stone such as emerald, spinel, yellow topaz, etc.; copper for hard stones such as ruby, sapphire etc., and steel plates for diamonds) and starts wheel. Applies water to wheel and presses stone against its surface. Checks stone frequently while polishing for finish. Polishes stone finally in corundum polishing wheel in similar manner. May polish bigger stones by holding them directly by fingers and manipulating against revolving wheel.

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

7313.1501 Diamond Assorter

Diamond Assorters have to separate polished diamonds and group them into lots having similar characteristics and reject which are not as per required quality. It is done by looking at the diamond through an eye glass under light and requires experience in spotting similar

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

type of diamonds. Each diamond is assessed according to its characteristics of cut, carat, colour and clarity.

Qualification Pack Details:

QP NOS Reference	G&J/Q2505
QP NOS Name	Diamond Assorter
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1502

Polished Diamond Grader and Assorter (Basic)

Polished Grader and Assorter (Basic) mainly works with a tripod or table loupe to segregate polished diamonds mainly less than 30 cents in size into two or three groups based on some common characteristic cut, carat, clarity or colour. The individual is responsible for delivering segregated diamonds with no loss.

Qualification Pack Details:

QP NOS Reference	G&J/Q4909
QP NOS Name	Polished Grader and Assorter (Basic)
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1503

Polished Diamond Grader and Assorter (Advance)

Polished Graders and Assorters (Advanced) mainly work with a loupe to segregate polished diamonds into

multiple groups based on its characteristics like cut, carat, clarity or colour. The individual is required to have knowledge of performing measurements of 4Cs on a diamond. The individual is responsible for delivering segregated diamonds with no loss.

Qualification Pack Details:

QP NOS Reference	G&J/Q4909
QP NOS Name	Polished Diamond Grader & Assorter (Advance)
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1504

Bottom Polisher

Bottom polisher works with bottom dop tang system and makes the 24 bottom facets of a diamond by polishing it on the polishing wheel or scaife in order to yield maximum brilliance and symmetry. For polishing, the stone is set either in a lead dop or a mechanical-clamp and held down on a revolving cast-iron scaife (horizontal and circular disc) charged with diamond dust.

Qualification Pack Details:

QP NOS Reference	G&J/Q4707
QP NOS Name	Bottom Polisher
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1505

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Gemstone Girdle Polisher

Gemstone girdle polisher works with high-speed rotating machines with metal scaifes and buffs to produce a fully finished stone.

Qualification Pack Details:

QP NOS Reference	G&J/Q6707
QP NOS Name	Gemstone Girdle Polisher
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1506

Gemstone Polisher

Gemstone Polisher works with high-speed rotating machines with metal plates and buffs to produce a fully finished stone. The polisher may work on pre-shaped (cabochon) stone or faceted stone.

Qualification Pack Details:

QP NOS Reference	G&J/Q6707
QP NOS Name	Gemstone Polisher
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1601

Gemstone Pre-shaper

Gemstone Pre-shaper works with high-speed rotating scaife machines with diamond or steel laps in order to give the rough cut gemstone the shape as per plan. Pre-shaping determines the shape,

size and weight of the processed final stone.

Qualification Pack Details:

QP NOS Reference	G&J/Q6606
QP NOS Name	Gemstone Pre- shaper
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1602

Gemstone Final Shaper and Calibrator

The individual works with high-speed rotating scaife machines with diamond or steel laps in order to give the pre-shaped gemstone the final shape as per planned weight and size. Final-shaping determines the shape, size and weight of the final stone.

Qualification Pack Details:

QP NOS Reference	G&J/Q6606
QP NOS Name	Gemstone Final Shaper and Calibrator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1701

Gem Driller

Gem Driller drills holes in precious stones according to design with bow drill. Fixes diamond bit to serve as cutter in drill (wooden piece having metal device to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

hold diamond bit) and sets sized wooden plate having carved pocket on drilling table. Holds stone to be drilled in pocket of wooden plate. Arranges continuous flow of water as coolant at drilling point. Holds drill in bow and drills stone according to stone design, frequently checking it for alignment and shape. Drills pearl by using sharp steel pin instead of diamond bit.

Qualification Pack Details:

QP NOS Reference	G&J/Q6808
QP NOS Name	Gem Driller
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1702

Window Opener

Window opener works with dop-tang system to make an opening or a window on the rough diamond by polishing it on the polishing wheel or scaife in order to observe and map internal features of the diamond prior to cutting and planning, while maintaining minimal weight loss.

Qualification Pack Details:

QP NOS Reference	G&J/Q4101
QP NOS Name	Window Opener
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1800

Jewellery Engraver

Jewellery Engraver engravés ornamental designs or letters on ornaments and jewellery using fine chisels and hand tools. Draws in pencil required design to be engraved, on paper, if ornament is fairly big or else draws design on ornament itself using fine steel point. Transfers design from paper to ornament by placing designed paper on surface of metal coated with wax solution and rubbing surface of paper to leave impression of design on waxed surface. Holds ornament in special device or fixes it in shellac. Marks outlines of design on ornament using steel point. Engraves design by stages using different types and sizes of chisels and hand tools changing position of article on table as required. Scoops out excess material from metal using special tools, cuts it to required depth or height and prepares base for setting and mounting stone. May make simple designs on plate for goldsmith to work. May engrave or emboss by dies and polish ornaments to high finish. May use compass for marking circular designs. May set and mount stones on gold article.

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.1900

Engraver

Engraver cuts floral, artistic designs or letters on metal plates and other articles such as flower vases, cigarette cases etc., using small chisels and hammer. Applies chalk or wax solution on surface to be engraved and makes free hand sketch or traces design on metal surface. Holds article in special wooden device or fixes it in shellac in cases of round articles, such as plates, ash trays etc., and places it at

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

convenient height. Marks outline of design with small chisel. Engraves design by stages with different chisels by careful manipulation of hands and fingers to required depth and finish. May use compass for marking circular designs. May also engrave without marking or any prepared design.

ISCO 08 Unit Group Details:

Code 7313

Title Jewellery and Precision Metal Workers

7313.2200

Embosser, Sheet

Embosser, Sheet embosses landscape, floral, artistic design etc. on soft metal sheets by means of hand tools. Melts powdered gum, mixes it with linseed oil and applies paste thickly on metal plate to serve as pad. Warms sheet to be embossed on red hot charcoal or coke fire and fixes it on pad. Applies chalk solution on sheet and traces design or draws freehand sketch on it. Forms outline of design with punch and hammer. Regulates striking according to level of embossing required. Completes design using various types and sizes of punches and chisels and by manipulation of finger movements. Removes embossed sheet from base by warming it again on fire. May also emboss sheets by dies.

ISCO 08 Unit Group Details:

Code 7313

Title Jewellery and Precision Metal Workers

7313.2300

Inlayer, Metal

Inlayer, Metal sets gold or silver wire on metal plates according to design using

hand tools and produces colour effect by heat treatment. Secures sized plate on base using lac. Applies chalk solution on plate and copies design or draws freehand-sketch on it. Cuts design on it with fine chisels in stages and inserts pieces of gold or silver wire of required thickness in them with long needle like tool. Files surface to make it even, polishes in buffering lathe and heats plate on over till it changes colour to required shade. Polishes plate by rubbing with special type of stone. May also set very thin gold and silver wire on steel plate (soft work) by first making surface rough by fine knife cuts and then pressing wire on it according to design, by fingers and knife.

ISCO 08 Unit Group Details:

Code 7313

Title Jewellery and Precision Metal Workers

7313.2401

Rubber Mould Maker

Rubber mould maker uses different types of rubber and works with vulcanising machine and various hand tools such as sterilised blade in order to create the mould.

Qualification Pack Details:

QP NOS Reference G&J/Q2606

QP NOS Name Rubber Mould Maker

NSQF Level 5

ISCO 08 Unit Group Details:

Code 7313

Title Jewellery and Precision Metal Workers

7313.2402

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Wax Piece Maker

Wax piece maker works with different types of waxes, injection moulding machine and consumables in order to produce the wax replica of jewellery piece.

Qualification Pack Details:

QP NOS Reference	G&J/Q2606
QP NOS Name	Wax Piece Maker
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.2501

Boiling In Charge

Boiling In Charge places the finished diamond in a beaker with chemical solution like hydrochloric and sulphuric acid and places the beaker in a heating oven. This removes any residue of diamond dust, dirt or other contaminants collected during the cutting or polishing process. This process may also remove/bleach some of the darker surface reaching inclusions (Naats). Boiling this is sometimes performed on rough as well to improve the appearance of the rough.

Qualification Pack Details:

QP NOS Reference	G&J/Q4808
QP NOS Name	Boiling In Charge
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.2601

Final Quality Inspector

Final Quality Inspector ensures that the jewellery piece manufactured is as per design and defect-free before allowing it to be dispatched to the customer.

Qualification Pack Details:

QP NOS Reference	G&J/Q1010
QP NOS Name	Final Quality Inspector
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

7313.9900

Jewellery, Goldsmith and Silversmith Workers, Other

Jewellery, Goldsmith and Silversmith Workers, other include all jewellery and precious metal workers not elsewhere classified.

Qualification Pack Details:

QP NOS Reference	
QP NOS Name	
NSQF Level	

ISCO 08 Unit Group Details:

Code	7313
Title	Jewellery and Precision Metal Workers

Family 7314

Potters and Related Workers

Potters and related workers prepare pottery, porcelain ware, sanitary ware, bricks, tiles and abrasive wheels by hand or by machine.

7314.0100

Mould Maker, Pottery and Porcelain

Mould Maker, Pottery and Porcelain makes moulds of plaster-of-Paris from models for production of pottery and porcelain ware. Collects requisite quantity of plaster-of-Paris and dissolves it in fixed amount of water to make semi-liquid substance; stirs liquid thoroughly with hand or stirring rod to acquire desired consistency; applies soap solution inside master mould to prevent plaster-of-Paris sticking inside mould; pours liquid plaster-of-Paris into master mould stirs plaster-of-Paris by hand inside master mould to remove air bubbles; allows plaster-of-Paris to settle and dry inside master mould; scrapes off the surplus plaster-of-Paris from the master mould using steel scraper; opens master mould and removes mould into hot chamber for drying. May form porcelain wares using plaster-of-Paris moulds. May work from drawings without model.

ISCO 08 Unit Group Details:

Code 7134

Title Potters and Related Workers

7314.0200

Caster, Pottery and Porcelain

Caster, Pottery and Porcelain casts clay and porcelain wares like cups, bowls, pots, etc. by pouring slip (semi-liquid clay) into plaster-of-Paris moulds. Selects moulds

and cleans inside to remove dust and foreign matter; holds parts of mould together and ties around outer face with cord to prevent leakage of slip through joints; stirs slip thoroughly in container, adding water if necessary to obtain proper consistency; fills pitcher with slip and pours it into mould; pours excess slip from mould after shell of clay of required thickness has formed inside mould; places mould upside down to drip and dry; unties cord holding mould parts together, and removes partially dry moulded ware; scrapes ware with knife like tool; smoothens it with wet sponge and places it on drying rack. May fix attachments to ware where required.

ISCO 08 Unit Group Details:

Code 7134

Title Potters and Related Workers

7314.0300

Clay Toy Maker/Hand moulder

Clay Toy Maker makes toys from clay. Mixes mud or special type clay with water to make wet or plastic clay of desired consistency; selects appropriate wooden mould (in 2 pieces) of desired type of toys, figures, etc. to be made; presses wet mud or plastic clay or pours semi-liquid clay into mould and allows it to dry; dismantles mould blocks carefully and removes moulded figure or toy; fixes required attachments to toys to make complete unit; gives finishing touches to pieces with blade and wet cloth to give desired and distinct features and smoothness and allows them to dry in open sun or under shade; paints clay form with hand brush and desired colours to give final touch. May dress toys or dolls with appropriate dress and other accessories such as hairs and ornaments. May make simple toys by hand moulding

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

by building form and features by deft use of fingers.

ISCO 08 Unit Group Details:

Code 7134

Title Potters and Related Workers

7314.0400

Moulder, Hand (Ceramics)

Moulder, Hand (Ceramics) makes ceramic articles such as sanitary wares; abrasive wheels, bricks, tiles, etc. by pressing moist clay by hand in plaster of Paris or Wooden (Bihar) moulds and moulding it to desired shape or form. Kneads moist clay with hands and feet or by shood (Bihar) to give it required consistency or plasticity; applies thin coating of oil or clay dust or both, inside mould to prevent moist clay sticking to surface when filled; presses clay firmly into mould by hand, with mallet or by means of ramming tool to pack mould uniformly; scraps off projecting clay with sharp instrument to give moulded article smooth edge; allows clay to remain in mould for short time to dry and shrink slightly; removes semidry ware from mould and places it in drying chamber, after checking defects, to form and shape. May specialize in particular branch, i.e. figures, tea pots, sanitary wares, etc.

ISCO 08 Unit Group Details:

Code 7134

Title Potters and Related Workers

7314.0500

Maker (Pottery and Porcelain)/Jigger and Jolly Operator

Maker; Jigger Man; Jolly Machine Operator (Pottery and Porcelain) operates

jigger or jolly machine for moulding damp and plastic clay or porcelain into articles such as jars, cups, saucers, etc. Selects proper shaping tool or metal die for desired shape of ware and fits it to the jollyarm of the machine; clamps mould covered with flat sheet or clay into holder of jigger or jolly; sets automatic screw to obtain desired thickness of ware; starts machine and releases pedal lever to allow holder to rotate; lowers jollyarm on clay to shape ware and applies wet sponge or cloth as necessary to keep proper consistency for shaping; turns hand lever in reverse direction to send back jollyarm to its original position; depresses pedal to stop holder from rotating and removes pressed and moulded article from machine and places it at a nearby rack; cleans holder and jollyarm with wet cloth or brush to remove stuck clay; repeats process. May fix handles and other fixtures to finished product. May repair and service machine.

ISCO 08 Unit Group Details:

Code 7134

Title Potters and Related Workers

7314.0600

Turner Pottery and Porcelain

Turner, Pottery and Porcelain operates pattern wheel to trim to desired shape unbaked pottery and porcelain ware formed by Caster, Maker and Thrower with appropriate hand tools. Fixes ware in wheel; sets and starts machine to rotate piece; selects appropriate trimming tool and presses and manipulates tool against ware to obtain desired shape; removes shaped ware from wheel. May smoothen and finish surface using sand paper.

ISCO 08 Unit Group Details:

Code 7134

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Potters and Related Workers

7314.0700

Bricks and Tile Moulder, Hand

Brick and Tile Moulder, Hand moulds by hand bricks or tiles of various shapes and sizes using appropriate moulds. Smears inside of mould with thin coating of oil or dusts it with dry clay. Kneads lump of clay to obtain proper consistency and throws it into mould. Presses clay into mould by hand so as to fill in mould completely. Scrapes off excess clay from mould and turns mould upside down to remove moulded brick or tile.

ISCO 08 Unit Group Details:

Code 7134

Title Potters and Related Workers

7314.0800

Abrasive Wheel Moulder

Abrasive-Wheel Moulder tends hydraulic press to mould synthetic abrasive discs, hones and grinding wheels. Selects mould parts according to size and thickness of wheel desired and assembles parts to form mould. Weights out specified amounts of abrasive, compound and adhesive, pours compound into mould on rotating turntable, and inserts bushings and hub nuts in centre of mould to form wheel. Places top plate on mould, positions mould in press and turns valves and leavers to close press and start pressing cycle. Removes pressed wheels from mould and places on plates for drying in kilns. May stamp or mark code numbers on pressed wheels. May mix grit, resin and clay to form abrasive compound, using mixing machine. May be designated according to type of abrasive used such as DIAMOND WHEEL MOULDER, EMERY-WHEEL MOULDER, etc.

ISCO 08 Unit Group Details:

Code 7134

Title Potters and Related Workers

7314.0900

Potter (Pottery and Porcelain)/Potter's Wheel Operator

Potter; Thrower (Pottery and Porcelain) forms pottery or porcelain ware by moulding clay with hands as it revolves on the potters' wheel. Places lump or soft pliable clay in centre of flat wheel; rotates wheel by foot or machine, or by giving few quick turns using stick; centres clay on wheel by pressure of hands, and fashions ware of desired shape and size by softening clay with water and manipulating with hands; cuts ware from base with wet thread and removes it for drying. May knead, work and prepare clay and bake wares in kiln. May trim dried articles to desired shape by turning it using cutting tools.

ISCO 08 Unit Group Details:

Code 7134

Title Potters and Related Workers

7314.1000

Granulator Attendant (Cement)

Granulator Attendant, (Cement); Nodulizer Man tends granulator (mixing machine) to splash raw materials of cement with spray of water to produce granules of material for burning in kiln. Starts machine and regulates feed to material (Cement dust) into granulator; sprays water into granulator through water pipe while machine rotates at speed; observes mixing of material and water to determine if uniform granules are being formed; regulates feed of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

material, rotation of pelletizer amount of water spray, and heat of oven to insure pellets are produced to specifications; opens inspection ports on oven and observes or removes pellets for examination to ensure specified hardness and heat.

ISCO 08 Unit Group Details:

Code 7134
Title Potters and Related Workers

7314.1100 Clay Maker (Pottery)

Clay Maker (Pottery) prepares and makes clay for making pottery articles. Mixes different types of clay manually or in mixing machine fitted with double shafts and rollers; adds required quantity of water for mixing clay; stacks clay in yards for curing and drying; checks by sight and touch that moisture contents of clay are to required standard for pressing; adds more water if required; feeds conveyor with cured clay for dropping in mixing and pug mill or feeds mill manually with clay.

ISCO 08 Unit Group Details:

Code 7134
Title Potters and Related Workers

7314.1200 Checker (Ceramics)

Checker; Examiner; Sorter (Ceramics) examines pottery and porcelain ware by touch and sight at different stages of production, rejects defective pieces and classifies goods according to quality.

ISCO 08 Unit Group Details:

Code 7134
Title Potters and Related Workers

7314.1300 Sorter, Brick and Tile

Sorter, Brick and Tile; Checker, Brick and Tile sorts burned bricks, tiles or refractory goods according to colour (shade), hardness and quality. Removes product from kiln, examines it visually for colour, hardness and shape; taps product with finger or wooden rod to judge quality by sound; discards broken pieces; sorts and marks in chalk products according to shade, quality, etc. May be designated according to material sorted as BRICK SORTER; TILE SORTER, etc.

ISCO 08 Unit Group Details:

Code 7134
Title Potters and Related Workers

7314.9900 Abrasive Wheel Formers, Potters and Related Workers, Other

Abrasive Wheel Formers, Potters and Related Workers, other include workers who make pottery, porcelain ware, bricks, tiles and abrasive wheels not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7134
Title Potters and Related Workers

Family 7315

Glass Makers, Cutters, Grinders and Finishers

Glass makers, cutters, grinders and finishers blow, mould, press, cut, trim,

grind and polish glass, shape molten glass according to patterns.

7315.0100
Blower, Glass

Blower, Glass blows molten glass into shape by means of blowpipe. Receives blowpipe with molten glass from Blower Helper and shapes glass by blowing into and manipulating pipe or by blowing glass into shape of mould. May specialize in blowing any particular object and be designated accordingly such as BOTTLE BLOWER, BULB BLOWER, etc.

ISCO 08 Unit Group Details:

Code 7315
Title Glass Makers, Cutters, Grinders and Finishers

7315.0200
Blower, Laboratory Apparatus

Blower, Laboratory Apparatus; Table Blower (Glass) shapes glass tubing, by blowing and bending, according to specifications to form scientific apparatus such as flasks, retorts, stills and pipettes. Obtains glass tubing of suitable bore and length. Heats tubing to viscous condition by manipulating it over a Bunsen burner. Blows heated tubing into specified forms with either compressed air or own breath. Shapes bends, or joins together sections of blown tubing using various glass forming tools. Checks capacities of apparatus to ensure correct specifications. May work from drawings or other specifications.

ISCO 08 Unit Group Details:

Code 7315
Title Glass Makers, Cutters, Grinders and Finishers

7315.0300
Blower Helper (Glass)

Blower Helper (Glass) assists Blower in the manufacture of glass articles. Dips bubble prepared on blowpipe by Bubble Maker into molten glass and gathers required quantity of molten glass for type of article to be made. Rolls gathered glass in cup-shaped metallic plate, containing water and oil to spread molten glass to bubble uniformly; takes blowpipe with glass bubble, and hands over blowpipe to Blower for blowing desired article. May act as Blower to mould required glass products when necessary. Bubbler (Glass) gathers molten glass from furnace on heated end of metal blowpipe for blowing desired article by Blower. Heats one end of metal blowpipe, dips it in tank of molten glass and rolls it round together required quantity of molten glass around its tip. Removes pipe end from tank and rolls gathered glass over iron plate to give it uniform shape. Checks shape of glass bubble at tip end and blows through pipe to expand glass bubble slightly in size. Cools glass bubble in air for some time before further processing by Blower Helper. Bubble Holder (Glass) air cools glass bubble made by Bubble Maker. Blows gently by mouth through blowpipe to expand bubble slightly, depending upon the size and shape of article to be produced. Rolls or waves blowpipe to air cool bubble. May work as BUBBLE MAKER, when necessary.

ISCO 08 Unit Group Details:

Code 7315
Title Glass Makers, Cutters, Grinders and Finishers

7315.0600

Mouldman (Glass)

Mouldman; Mould Catcher; Moulder (Glass) opens and closes metal mould for blowing of glass ware. Selects and places in position appropriate metal mould according to size and shape of glass ware to be produced. Heats mould to required temperature to ensure that mould is not too hot or cold when molten glass is blown into it, with a view to prevent cracking of glass. Opens mould to receive molten glass from tip of blowpipe and closes it; allows Blower to blow molten glass to desired shape of mould, and opens mould after blowing is over to remove blowpipe. Cools mould to required temperature by pouring cold water to remove product.

ISCO 08 Unit Group Details:

Code 7315
Title Glass Makers, Cutters, Grinders and Finishers

7315.0700

Bender (Glass)

Bender, Glass heats and bends glass tubing or pipettes to form articles such as neon signs and other articles. Fixes asbestos pattern on work bench. Marks and cuts glass tubing with file and breaks off required length. Ignites gas burner and holds tube in flame at point where bend is desired, rotating tube to heat it uniformly. Places one end of rubber hose over end of tube and the other end in his mouth; blows through hose to prevent tube from collapsing and bends the tube. Places bent tube on asbestos pattern to check accuracy of bend, reheating and bending glass, if necessary; fuses together sections of bent tubing. Cools bended tubing by annealing it manually, ensuring uniform wall thickness. May specialize in a

particular product and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7315
Title Glass Makers, Cutters, Grinders and Finishers

7315.0800

Gatherer (Glass)

Gatherer (Glass) gathers specified amount of molten glass on end of iron rod and carries it to Pressman. Dips end of iron rod or blowpipe into pot in furnace containing molten glass; collects required amount of molten glass on end of rod or blowpipe and carries it to Pressman for further processing. May assist Blower by preliminary shaping or blowing.

ISCO 08 Unit Group Details:

Code 7315
Title Glass Makers, Cutters, Grinders and Finishers

7315.0900

Drawer (Glass)

Drawer; Tarwala (Glass) draws molten glass into wire of desired thickness for making bangles. Heats parison (intermediate shape produced in the manufacture of a glass article in more than one stage) in oven, attached to one end of iron rod till glass becomes sufficiently viscous (semi-fluid); draws molten glass into thread to be wound into coil on steel roller by Roller Man.

ISCO 08 Unit Group Details:

Code 7315
Title Glass Makers, Cutters, Grinders and Finishers

7315.1000

Bead Maker (Glass)

Bead Maker (Glass) makes beads from glass. Melts end of solid glass rod using gas burner or furnace. Takes small globule of molten glass on end of metal wire and spins wire till bead is formed, or rolls globule of glass in mould to form bead of desired size and shape. Cools and solidifies glass article by holding it over blast of compressed air. Opens mould and removes beads. May make beads by blowing process.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1100

Optical Worker

Optical Worker cuts and grinds optical components. Coats them by vacuum deposition. Cements optical glass lenses; etches, engraves and prints metals/non-metals using photographic or ruling techniques. Applies chemical and spray techniques in assembly of optical instruments. Cuts blanks from slabs/moulds and smoothes and polishes on machine or by hand operation. Centres and edges the lenses. Carries out on line stage and interline stage inspection of components. May make test plates, master and articulates by photographic techniques, thin film multilayer vacuum deposition for wide bend anti-reflection and laser mirror coating.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1200

Lens Grinder

Lens Grinder operates grinding machine to grind surfaces of lens blanks to required curvature and thickness. Selects metal grinding disc with required dioptric curve and clamps it on spindle of machine. Places metal block with mounted lens blank in position against grinding disc. Starts machine and applies various grades of abrasives or emery paste to disc as required periodically during grinding process for surfacing the lens blank; removes block from machine after specified time and examines blanks for defects. Uses different curvature metallic discs for surfacing both sides of the lens blank in case of cylindrical or spherical lenses. May mount blanks on metal block.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1300

Edger (Optical glass)

Edger; Lens Edger (Optical Glass) grinds and smoothens edges of lenses or lens blanks to reduce them to required size and shape. Selects metal pattern and inserts it into head of edging machine. Inserts rubber faced pad in lens holder, smears lens with oil and places lens in holder. Aligns lens with pattern and clamps lens in holding device of machine. Manipulates levers to press lens edge against rotating wet grind-stone and removes lens when grinding is complete. Measures and inspects work for conformance to specifications. Smooths rough edges by holding lens against grinding wheel. May fit edged optical

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

lenses into spectacle frames. May also dress grinding wheel.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1400

Lens Polisher (Optical)

Lens Polisher (Optical) sets and operates machine to polish surfaces of lens blank to high lustre. Selects and fits felt-lined polishing mould of required size and curvature on lower spindle of machine; position block on which lens blanks are mounted against polishing tool; starts machine and applies rouge or any other polishing compound to disc periodically during polishing process to polish blank to required level of lustre. Stops machine and removes block after specified time to examine blanks for defects. May operate battery of polishing machines. May operate cylindrical polishing machine.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1500

Lens Centerer and Edger (Optical Glass)

Lens Centerer and Edger (Optical Glass) locates optical centre of lenses used in precision optical instruments, such as telescope, microscope or camera and grinds their edges concentric with optical axis. Positions lens in cement bed in chuck and sets chuck in spindle of lathe of centring machine. Starts machine; observes in revolving lens light reflected from mirror in machine; moves and

positions lens in cement bed until image remains stationary denoting optical centre found. Hardens cement to secure lens in position and grinds edges to specified degree over revolving abrasive grinding stone. Inspects and measures work frequently as grinding proceeds. May fit glasses in frame according to prescription. May polish lens.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1600

Wheel Grinder (Glass)

Wheel Grinder, Glass grinds and finishes rough edges of glass-white on flat grinding wheel. Examines glass articles processed by Glass Cutter and collects pieces with uneven and rough edges for grinding. Switches on grinding wheel, moistens surface of wheel by pouring water, applies and maintains adequate supply of moist emery powder or other suitable abrasive on centre of wheel so that it spreads out on its surface; holds by hand glass article on revolving grinding wheel to smoothen rough and sharp edges. Checks article for proper finish. Washes and cleans processed article. May cut glass. May polish surfaces.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1700

Edge Finisher (Glass)

Edge Finisher, (Glass) smoothens sharp and rough, edges of beakers flasks,

tumblers and other glass articles by melting edges on glass flame. Sets edge finishing machine, and lights gas burners in machine; places glass article on disc which rotates through gas flame. Regulates colour and intensity of flame by manipulating valve. Starts machine to rotate disc through flame to soften and smoothen edge. Stops machine to check smoothened surface; removes article with tong when smoothening is completed.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1800

Cutter, Glass Bangles

Cutter, Glass Bangles cuts glass-wire-coil into rings of required size with Carborundum (silicon carbide-hard abrasive). Selects wooden rod of required size and girth and inserts it through glass-wire-coil; places wooden rod in position in work bench and scratches across glass coil with carborundum to cut into rings; draws out cut bangles by hand and passes them for further processing. May join two ends of cut ring to form complete bangle.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.1900

Cooling Man (Glass)

Cooling Man; Bench Man (Glass) separates moulded glass articles from blowpipe by chilling film of glass, joining blowpipe and moulded article. Receives moulded glass article fixed with blowpipe from Blower Glass; pours water on metal

between tube and article and nips off glass to separate moulded article from blowpipe. Removes glass article from mould; counts number of articles and passes them to carrier. May work as BUBLER or MOULD CATCHER.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.2000

Glass Cutter, Other

Glass Cutter, Other; Glass Cracker; Glass Trimmer cuts glass tubes, rods, sheets or other articles to specified sizes and shapes, using hand tools or cutting machine. Lays stock of glass sheet, tubes or rods on padded surface of table, places pattern on glass article, marks out and cuts pattern with glass cutter tool; breaks away excess glass by hand or with notched tool. Stocks cut part aside for removal. May grind and smoothen edges, using belt sander.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.2100

Joiner, Glass Bangles

Joiner, Glass Bangles melts and joins both ends of glass ring cut by Cutter, Glass Bangles, using burner and blowpipe. Holds ring by tong, heats unjoined ends over gas flame or burner to melt glass; blows blowpipe to melted ends to fuse both ends together to form glass bangles.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.2200

Crusher Attendant, Stone

Crusher Attendant, Stone operates machine in which lumps of stone are crushed to reduce them to desired size. Starts machine and regulates flow of stones from conveyor chutes or bins, shovels or throws stones into hopper of machine; prods large sized stone pieces to force them between crusher jaws with bar; breaks oversize stones with hand hammer; loosens clogged material in machine with bar; places empty containers at delivery-end to receive crushed materials; cleans, lubricates and makes minor repairs to machine. May operate machine fitted with conveyor system and may sieve powder into different grades.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.2300

Grinder (Stone and Clay)

Grinder; Edge Runner Attendant (Stone and Clay) tends and feeds grinding machine to grind pieces of rock or clay into fine dust. Adjusts clearance between rollers and bed stone (solid plate) of machine for fineness of grinding required; starts machine and feeds material into machine with shovel breaking loosens clogged material in machine with bar; large pieces with bar or hammer if necessary; regulates water valve to let out requisite water into machine to settle dust. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.2400

Sorter, Glass Products

Sorter, Glass Products sorts finished glass products for uniformity, size and quality. Examines glass or glass ware for conformity to specification; measures and checks dimensions, shape, patterns and casting with measuring instruments or gauges; scrutinizes product for cracks, scratches, non-uniformity of colour and other flaws and sorts glass products into first second, third etc., quality depending upon finish of products; rejects imperfect product and piles them separately. May remove minor surface scratching by grinding surface with rouge and smooth rough edges using belt sander.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

7315.9900

Glass Makers, Cutters, Grinders and Finishers, Other

Glassmakers, Cutters, Grinders and Finishers, other include workers who blow, mould, press and roll shapes from molten glass and cut, grind and polish glass not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7315

Title Glass Makers, Cutters, Grinders and Finishers

Family 7316

Sign Writer, Decorative Painters, Engravers and Etchers

Sign Writers, Decorative Painters, Engravers and Etchers decorate articles made of wood, metal, textiles, glass, ceramics and other materials. They plan, lay out and paint letters, figures, monograms and designs to make signs and engrave and etch ornament and floral designs on glass and other articles.

7316.0100

Engraver, Glass

Engraver Glass; Glass Cutter engraves ornamental and floral designs, monographs etc. on glass ware using revolving copper or stone engraving wheel. Sketches or traces with crayon outline of design on surface of glass article; mounts copper or stone wheel of proper width and diameter on machine; starts wheel; moistens revolving wheel with water; holds glass ware with both hands against outer edge of wheel, so that it grinds and cuts into glass surface along outline of traced or sketched design. Changes wheels to make cuts of different sizes. May polish engraved pattern.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters, Engravers and Etchers

7316.0200

Glass Etcher

Glass Etcher etches, with acid, decorative designs, calibration markings, numerals,

lines and other markings on glass articles. Prepares acid bath; dips waxed glass, on which design or other markings have been drawn, into acid bath, or exposes it to acid fumes so that portions not covered with wax will be eaten away; rinses etched glass in cold water to remove acid and then in hot water to remove wax. May coat articles with wax.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters, Engravers and Etchers

7316.0300

Sand Blaster (Glass)

Sand-Blaster; Froster Embosser; Obscuring Machine Operators (Glass) cuts artistic designs, according to pattern, in surfaces of glass articles, such as bowls and vases, using sand blasting equipment. Transfers drawing of desired design to outer side of adhesive tape; covers glass with tape, and cuts design out of tape with knife to uncover area of glass to be sand-blasted. Operates compressed air gun that blows fine sand against uncovered glass and cuts design into or frosts surface. Removes protective tape from glass. May make freehand drawing of design to be cut. May blast design into inside of bowl or vase to create raised rather than sunken effect.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters, Engravers and Etchers

7316.0400

Volume Man/Calibrating Technician

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Volume Man marks with special ink and pen measurements and units on outer surface of apparatus such as pipettes, burettes, flasks and measuring glasses for making permanent engraving on them. Positions glass article to be calibrated on levelling stand and pours required volume of water from automatic pipette. Marks out base of water level on outer surface of article with special ink and pen; pours out water on completion of calibration and passes it to Waxing Man, Glass.

ISCO 08 Unit Group Details:

Code 7316
Title Sign Writer, Decorative Painters, Engravers and Etchers

7316.0500

Waxing Man (Glass)/Helper Calibrator/Decorator, Glass

Waxing Man (Glass) applies coating of melted wax on exterior surfaces of glass-ware previously marked by Volume Man to be graduated, by dipping articles in molten wax. Heats and melts paraffin-wax cakes of specified quality in suitable vessel over heater; holds article, previously marked by Volume Man with tongs and dips it in molten wax, holding it for required time to give exterior surface of article thin uniform coating of wax. Removes article from wax to dry and cool for further processing by Graduator. Applies molten wax with brush to touch up unwaxed and defectively waxed portion of article. Scrapes off wax coating from surface of etched articles. May apply wax on article by pouring it on article from vessel.

ISCO 08 Unit Group Details:

Code 7316
Title Sign Writer, Decorative Painters, Engravers and Etchers

ISCO 08 Unit Group Details:

Code 7316
Title Sign Writer, Decorative Painters, Engravers and Etchers

7316.0600

Glass Enameller

Glass Enameller; Glass Painter, Hand enamels, paints or stains decorative free-hand designs on glass with hand brush and paint. Draws outline of design on surface of glass article; mixes paint, enamel or stain to obtain desired shade or colours; places objects on work bench, and applies paint or enamel of various colours to it by hand-brush and according to pattern. May place painted glass in furnace for prescribed period, so that colours are fused to glass. May mix own colours.

ISCO 08 Unit Group Details:

Code 7316
Title Sign Writer, Decorative Painters, Engravers and Etchers

7316.0700

Hand Painter (Ceramics)

Hand Painter (Ceramics) paints, free hand, designs on pottery or porcelain ware or tiles, using small hand brushes, according to pattern. Marks outline of design on surface of article with pencil; mixes paints to obtain desired shade or colours; places object on work bench and applies paints of various colours to it by hand brush and according to pattern; keeps painted ware on rack to dry. May heat articles by placing them in racks of electrically operated ovens at required temperature for fixed periods so that colours are fused to surface of object. May prepare own designs. May mix own colours.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters,
Engravers and Etchers

7316.0800

Decorator (Ceramics)

Decorator (Ceramics) transfer from paper transfer decorative or ornamental designs on pottery or porcelain ware. Selects paper transfer of suitable or specified design, and according to size and shape of the pottery; applies varnish to the surface of the pottery on which design is to be transferred; applies and presses the paper-transfer skilfully and uniformly, avoiding any air-gap between the surface of article and paper transfer; dips the article in water, removes the paper, and wipes off the extra varnish on the surface of article; dries the article for further firing. May prepare own designs.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters,
Engravers and Etchers

7316.0900

Spray Painter, (Ceramics)

Spray Painter (Ceramics) sprays paint on pottery, porcelain ware, bricks, tiles, or sprays liquid glaze on large pieces which cannot be dipped easily in a solution. Fills container of spray gun with paint or glaze of desired colour; fixes container to spray gun and couples gun to air-hose; starts compressor or opens valve on compressed air line; presses trigger and directs spray of liquid over surfaces of objects; places ware on rack to dry; cleans gun and hose with solvents. May use stencils for spraying various designs on objects. May mix own colours.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters,
Engravers and Etchers

7316.1000

Glazer, Pottery and Porcelain

Glazer, Pottery and Porcelain coats by dipping biscuit ware (pottery articles after firing but before glazing) with glaze solution. Cleans ware such as dish, plate or saucer to remove dust by spraying it with air gun or dusting it with clean cloth. Checks and rejects articles with cracks and other defects. Holds articles with tongs or fingers and dips it in tub containing liquid, glaze; stirs liquid solution with hand or stirring rod thoroughly from time to time to acquire desired thickness of glaze coating; removes it from tub and holds it just above surface of liquid, turning article around to ensure even coating and to throw off excess glaze; places ware on rack to dry and rubs glaze over spot where tongs or fingers touched; removes excess glaze from dry ware by rubbing it with a buffing wheel or other implement. May apply liquid glaze with spray gun on large pieces which cannot be easily dipped in a solution.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters,
Engravers and Etchers

7316.1100

Mirror Silverer

Mirror Silverer, Silverer Mirror coats new and old mirror glass with silvering solutions. Weighs and mixes ingredients according to formula to prepare silvering solution of required consistency; places

cleaned mirror glass on silvering table; covers surface of glass with silvering solution and levels glass by means of wedges so that solution may not run off; allows silvering solution to remain on glass for prescribed period, drains excess of solution from glass and washes silvered glass in distilled water; dries mirror on drying table; coats silvered surface of glass with copper solution and protective paint to protect silvering from moisture. May spray silvering solution over glass surface using spray gun.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters, Engravers and Etchers

7316.1200

Sign Writer, Decorative Painters, Engravers and Etchers, Other

Glass, Ceramics and Related Decorative Painters, Other include workers who decorate articles made of wood, metal, textile, glass, ceramics and other materials, and plan, lay out and paint letters and designs to make signs not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7316

Title Sign Writer, Decorative Painters, Engravers and Etchers

Family 7317

Handicraft Workers in Wood, Basketry and Related Materials

Handicraft workers in wood and related materials apply traditional techniques like seasoning, impregnation to prepare wood, straw, rattan, reeds, stone, clay, shells, and other materials, and carve, mould,

assemble, weave, or paint and decorate various articles for personal or household use, or for decorative purposes. Basketry weavers, brush makers and related workers select and prepare materials like bristles, nylon, fibre, bass, whisker and wire to make wicker furniture, brushes and brooms and weave various kinds of baskets.

7317.0100

Lamp Shade Maker

Lamp Shade Maker makes lamp shades from cardboard, parchment, plastics or cloth. Selects frames of required shapes and sizes. Cuts material of desired design to fit frame; winds tape spirally over upper and lower rings of frame to form foundation for attaching material; pins covering material between rings, distributing it evenly; sews temporary stitches to material around lower wire and then top wire, pulling material taunt; sews material permanently to frame using various stitches depending on whether material is plain, rippled or pleated; trims off excess material with pair of scissors and sews in lining; sews trimming around top and bottom edges of shade or attaches trimmings to lamp shades. Glues parts of shades together, and secures shades made of paper, parchment or other materials into pre-fabricated wire frames. May fabricate wire frames by intertwining, welding together metal wires.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood, Basketry and Related Materials

7317.0300

Furniture Maker, Bamboo

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Furniture Maker, Bamboo makes bamboo furniture by sizing and dressing bamboo pieces, drilling holes, building frames and body with strengthening pieces. Studies pattern, size or design of furniture to be made; collects seasoned bamboo stakes (rods) them and soaks in water; removes stakes from bath when soft and cuts and removes thin splints and splits them into strips of desired size and thickness with selects cut bamboo into specific sizes, drills holes where necessary and sets them into required pattern; completes object by weaving seat, back and other parts as necessary and fastening ends either with bamboo or cane strips. May specialize in a particular article such as Table, Chair, Sofa set, etc. May also undertake repair work.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.0400

Furniture Maker, Reed

Furniture Maker, Reed makes reed furniture by sizing and dressing reeds and weaving them with rope to desired pattern. Studies pattern, size or design of furniture to be made; collects material, cuts them into required length and fastens them together with strings to desired shape; cuts off, conceals or weaves together loose ends, to finish edges; completes object by setting and fastening dry grass on handles, top, bottom and edges with rope. May use rexine or leather for decoration and durability on bottom, top, and handles. May specialize in fabricating a particular article or part of furniture and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.0500

Furniture Maker, Cane

Furniture Maker, Cane makes cane furniture by sizing and dressing required cane pieces, bending them to shape by heating, fastening parts together with cane strips and nailing. Studies pattern, size and design of furniture to be made; selects cane rods, cuts them to required length; shaves out pieces to remove projections, heats frame pieces and other sticks with blow torch, and bends them to desired shape; fastens sticks together with bolts, nails, and screws; weaves wickers in through and around frame cutting off and concealing or weaving together loose ends to finish edges; winds wickers around joints to strengthen and conceal them. May do polishing or painting of furniture. May fit cushions in chairs, sofa sets, etc. May undertake repair work of old furniture. May be designated according to article or part of furniture fabricated as BACK MAKER; CHAIR MAKER; SEAT MAKER.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.0600

Caner

Caner interweaves cane strips to make seat, back etc., of chairs, sofa sets and similar furniture. Soaks pre-cut rattan stakes (rods) in water to soften and bleach; removes stakes from bath when

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

soft, cuts and removes splints and splits them into strips of desired size and thickness; interlaces strips through and around frame of furniture to be made according to pattern, cutting off and concealing or weaving together loose ends to finish edges; winds wickers around joints to strengthen and conceal them. May specialize in weaving a particular article.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.0700

Basket Maker

Basket Maker makes baskets of specified size and shape by interlacing willow, rattan or other materials. Forms bottom of basket by interlacing strips of bamboo or similar material with framework of bamboo ribs; inserts ribs around edge of bottom and between woven sections of bottom to serve as framework of sides; bends ribs perpendicular to bottom and secures to hold them in position for weaving of sides; weaves strips through ribs until sides are completed; tapers or points ends of protruding ribs, and bends and inserts them into spaces in top edge of woven sides. May make solid bottom boards, using band saw, drill press, and carpenters' hand tools. May interlace reeds through stakes (rods), secured in screw blocks, to form parts of basket, such as woven bottom. May design baskets. May be designated according to type of basket woven as HAMPER MAKER; MARKET-BASKET MAKER; or according to material used as RATTAN WORKER; WILLOW WORKER.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.0800

Mat Weaver, Bamboo

Mat Weaver, Bamboo makes mats of seasoned and coloured bamboo strips according to pattern or design. Soaks pre-cut bamboo stakes in water to soften and bleach them; removes stakes from bath when soft, cuts and removes splints and splits them into strips of desired size and thickness; dresses bamboo strips to remove sharpness; colours strips according to desired pattern and weaves them into mat, cutting off and concealing or weaving together loose ends to finish edges; weaves thicker strips and ornamental borders on edge or end of mat. May make own designs. May weave window and door screens. May make fans, fruit baskets etc.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.0900

Mat Weaver, Grass and Leave

Mat Weaver, Grass and Leaves makes mat from palm, coconut tree leaves and grass materials. Removes central rib from leaves, dries the leaves in sun to remove extra moisture; cuts and dresses leaves to desired size; inter-weaves dressed leaves to form mat of required size and design, cutting off and concealing or weaving together loose ends to finish edges. May stitch them with twine for strength and durability.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7317
Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.1000 **Broom Maker**

Broom Maker fastens material such as palm leaves, coconut leaf ribs, broom-grass or bamboo wickers together or to broom handles with rope or wire to form brooms. Selects and sorts material according to length and quality of broom to be made; examines and removes stems which are short, broken or do not otherwise meet standards; arranges and fastens material together or around end of wooden handle by winding and stapling wire, rope, leather or metal strips; trims broom material to uniform length. May be designated according to type of broom made or material used.

ISCO 08 Unit Group Details:

Code 7317
Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.1100 **Chick Maker**

Chick Maker makes reed or bamboo chicks by sizing and dressing reeds or bamboo wickers and fastening together by twine. Collects material, cuts and sizes them into thin strips according to design; assembles and fastens strips together with thin rope or twine to form into mat of desired size; trims edges and fixes cloth piping on four sides. May stitch coloured cloth over chicks.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.1200 **Khas Thatti Maker**

Khas Thatti Maker makes Khas Thatties; (screens made with Khas) a type of aromatic grass roots used for keeping room cool from summer heat when cold water is sprinkled on them. Collects dry khas roots; prepares bamboo frames of required size; spreads layers of khas roots to make bed of required thickness and fastens it into bamboo frame with bamboo splinters to support on both sides and binds them with thin rope or sutli; trims edges to complete screen.

ISCO 08 Unit Group Details:

Code 7317
Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.1300 **Brush Material Preparer**

Brush Material Preparer prepares hog bristles and other brush filling materials, such as horsehair, nylon and vegetable fibres for use in brushes. Aligns bristles to ensure that flagged ends are together and discards defective ones. Ties bundle of bristles to prevent bending and places it on rack. Lowers rack of bundles into vat of boiling water to remove natural curl of bristle. Removes rack after specified time and places it on dolly or in oven to dry. Places bundle of bristles in carton and labels carton according to length, origin, grade and colour of contents. Prepares other brush-filling materials by straightening, combing, cutting and tying them according to type of material and intended use. Holds bundle of material against grinding wheel to flag ends to trim

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

butt ends, and to polish material. Selects filling material according to formula and lays it on work bench in prescribed manner prior to processing by mixing machine. May sterilise bristles and pack material in carton.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.1400

Brush Maker, Hand

Brush Maker, Hand selects and prepares brush materials, such as bristles, fibre, nylon or wire, and sets them in brush handle or base. Grades and mixes filling material according to type of brush made and cleans and otherwise prepares it; sorts and arranges material in tufts; inserts them in prepared holes and secures them with glue, cement, pitch or wire; trims brush material to uniform length. May be designated according to type of brush made or material used.

ISCO 08 Unit Group Details:

Code 7317

Title Handicraft Workers in Wood,
Basketry and Related Materials

7317.9900

Basketry Weavers, Brush Makers and Related Workers, Other

Basketry Weavers, Brush Makers and Related Workers, Other include all other workers who make wicker furniture, brushes and brooms and weave baskets not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7317
Title Handicraft Workers in Wood,
Basketry and Related Materials

Family 7318

Handicraft Workers in Textiles, Leather and Related Materials

Handicraft workers in textile, leather and related materials apply traditional techniques and patterns to produce woven fabrics, knitted, embroidered, woven and other garments and articles for household use, as well as traditional footwear, handbags, belts and other accessories.

7318.0100

Candle Maker

Candle Maker, Hand makes candle of special size or shapes by hand, dipping prepared wicks in molten wax, paraffin or similar material. Suspends candle wicks from metal frame and manipulates pulley system by hand to dip wicks into molten wax, paraffin or similar material until required thickness of wax adheres to wicks; removes and rolls candles under "rolling board", nibs end in "nibbing board", cuts to length, and places in racks to harden.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.0200

Candle Moulder

Candle Moulder operates battery of multiple moulding machines in which candles are produced in metal moulds through which continuous wicks are fitted. Opens valve which fills moulds

container with hot water, and fills moulding trough with hot liquid wax, using metal pail or metal ladle; operates valves which empty hot water from moulding trough and refill with cold water for cooling wax; allows poured material to harden in mould; cuts top of continuous wicks with long bladed knife; removes excess of candle material in moulding trough with special bottom-cutting tool which shaves bottom of candles in mould and also cuts off wick; operates handle to eject candles up and into clamp frame above machine; carries away finished candles and stacks in storage racks ready for packing; replaces bobbins of continuous wicks in base of machine and fits through candle mould as necessary.

ISCO 08 Unit Group Details:

Code 7318
Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.0300**Carpet Weaver (Carpet and Rug)**

Carpet Weaver (Carpet and Rug) operates one or more looms equipped with pile-wire mechanism to weave carpeting: Moves lever to open shed and inserts specified number of pile wires through shed in sequence to produce pile. Forces cop of filling into shuttle, using mallet, and inserts shuttle into loom. Places wax in holder to lubricate pile wires as wires enter and are withdrawn from shed. Starts loom and observes weaving to detect exhausted filling packages, mispicks, and irregular cutting of pile. Replaces exhausted filling, inserts pile wires into missed loops, and replaces dull cutting blades. May be designated according to type of carpet woven as Velvet Weaver (carpet and rug).

ISCO 08 Unit Group Details:

Code 7318
Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.0400**Knitting-Machine Operator,
Automatic**

Knitting-machine Operator, Automatic (Knitting) operates knitting machines to knit hose to shape of foot and leg: Places spools of yarn on spindles of machine and threads machine. Places welt rod in retaining notch of welt bar and turns lever to lower welt bar to knitting position. Pushes yarn carrier into position and turns bar to start machine to knit welt. Hooks draw-off straps from take-up roller to welt rod to hold welt and leg taut during knitting. Turns hand wheels to position picot bar to knit stitches joining welt to leg of hose and to raise picot and welt bars after welt is knitted. Stops machine and clips loose threads at welt and toe of completed hose, using scissors. Removes welt rods and hose from machine. Counts, bundles, and attaches identifying ticket to hose. Replaces and aligns needles and points of machine, using pliers. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 7318
Title Handicraft
Workers in Textiles, Leather and Related
Materials

7318.0500**Hand Printer, Textile/Hand Block
Printer**

Hand Printer, Textile prints patterns of various designs and shades on textiles by

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

hand using blocks, stencils, screen, spray gun etc. Mixes dyes to desired shade and thickness. May be known as CALICO PRINTER if engaged in printing cloth only.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.0600

Hand Dyer

Hand Dyer bleaches and dyes textile fabric or yarn by hand. Fills tub with water and mixes chemicals to make bleaching solution of required strength according to type and quality of fabric or yarn to be bleached. Washes fabric or yarn in solution and then rinses it with water. Spreads fabrics or yarn to dry., Prepares dye solution by mixing dyes and chemicals with water in tub. Boils dye solution when necessary. Puts fabric or yarn in solution and stirs it until dyed evenly and to required shade. Spreads fabric or yarn on line to dry. May also dry yarn in drying chamber.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.0800

Repairer, Fabrics/Fabric Mender

Repairer, Fabrics repairs faults in textile fabrics by plucking out knots and replacing broken or imperfect threads using hand tools. Inspects fabrics for markings that indicate faults. Plucks out knots with hand tool and gathers up slacks on loosely woven threads. Replaces broken or

imperfect threads with needle and thread, in such a way as to make repair invisible. May examine fabrics. (Excluded are workers employed mainly on repairing fabrics by sewing).

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.0900

Bale Breaker Tenter, Cotton/Blowroom Operator

Bale Breaker Tenter, Cotton; Bale Opener, Cotton; Lattice Feeder, Cotton tends bale breaking machine for opening and mixing cotton of various grades and partially cleaning it. Presses switch to start bale breaking machine. Pulls out and collects armful of cotton layers from stack and spreads it on creeper lattice of machine for breaking and uniform mixing. Ensures regular feeding of cotton into lattice in prescribed proportion; Stops machine if jammed with cotton. Removes surplus cotton and regulates feed to avoid further jamming. Restarts machine and watches operation of cleaning by beater and exit of cotton through delivery cage under guidance of Mistry. Cleans waste, trash and dust periodically from dust chamber. Removes wastes cotton from machine and cleans machine. May perform any other miscellaneous work in blow room.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.1000

Batching Worker, Wool

Batching Worker, Wool; Batching Supervisor, Wool checks bags of wool received from godown to ensure correct quality, colour and weight of wool to be mixed and supervises batching work. Receives bags of wool from stores and checks them for correct specifications. Allots bags of wool to Batching Man and directs him to spread wool of different quality, colour and weight in layers one upon another in required proportion to be mixed. Supervises mixing of wool by Batching Man and checks formation of batch to ensure that wool of correct quality, colour and weight is used. Maintains record of quantity and quality of wool received from store and batches formed. Controls and supervises work of Batching Man and Teaser Man.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles, Leather and Related Materials

7318.1100

Wool Sorter

Wool Sorters; Wool Picker sorts and grades wool according to length, colour and quality of wool judging by touch and sight. Picks fleece and wool and breaks them by hand into pieces. Separates them into heap according to colour, quality, etc. Picks out foreign matter such as sticks, knots etc. May use knife for cutting out sewn edges of old garments and removing unwanted portion.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles, Leather and Related Materials

7318.1200

Selector, Jute

Selector, Jute opens bales of jute and sorts, grades and classifies contents according to colour, softness, strength and texture. Receives bales of jute from godown and cuts ropes of bales with knife to open them. Spreads jute on floor manually, picks up samples to examine softness, strength, texture and colour of fibres by touch and sight and places different grades of jute separately for classification. Prepares jute by twisting ends of form Morahes (twisted jute) for stacking. May cut long and hard roots with knife. May carry jute to Softener Feeder for processing.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles, Leather and Related Materials

7318.1300

Grader, Coir

Grader, Coir sorts coir yarn according to grade. Examines thickness and colour hanks of coir yarn and separates them into lots accordingly.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles, Leather and Related Materials

7318.1500

Waste Machine Man (Cotton Textile)/Waste Collection Machine Operator

Waste Machine Man (Cotton Textile) tends machine for cleaning cotton waste for re-use by beating and pulling it apart.

Lifts waste roving, yarn or other matted cotton and spreads it on feeder apron or lattice of waste machine. Takes out by hand surplus cotton from machine when machine becomes jammed. Stores cleaned cotton in gunny bags. Cleans and oils machine. Is designated as WILLOW TENTER; ROVING WASTE OPENER; THREAD EXTRACTOR MAN; BONDA MACHINE MAN; etc. according to type of machine on which worked.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.1800**Scouring Man, Wool/Wool
Washing and Scouring Operator**

Scouring Man, Wool; Scouring Machine Man, Wool; Scourer, Wool tends scouring machine for washing raw wool in chemical solution to prepare it for dyeing and carding. Receives instructions from Scouring Supervisor and prepares chemical solution by mixing soda, soap and other scouring agents in proper proportion in hot water tank. Pours it into bowls of machine. Operates scouring machine and uniformly spreads wool by hand on feeder hopper of machine to obtain even flow of wool at delivery end. Regulates flow of wool from one bowl to another. Collects clean wool at delivery end and feeds wool on lattice of drying machine. Regulates flow of feeds and removes wool from drying rollers. Cleans machine and bowls periodically.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.1900**Cooker (Silkworm)**

Cooker (Silkworm) boils cocoons to kill pupa inside cocoon and trace end of silk filament for reeling silk. Fills tube containing water with cocoons and lets in steam to heat it. Allows cocoons to remain in boiling water for specified period. Ensures that all pupa inside cocoon are killed and water is kept at prescribed temperature. Stirs cocoons and boiling water with wooden stick to which they get attached. Collects in ladle cocoons whose filaments are drawn out. Delivers such cocoons at reeling section for Reeler to draw silk. May reel silk over reeling machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.2000**Softener Feeder and Receiver, Jute**

Softener Feeder and Receiver Jute tends softener machine for moistening and softening jute. Starts softening machine, picks up handful of jute (moral) or jute cuttings placed near feed-end of machine and places it evenly upon travelling apron or lattice of softening machine. Ensures that jute is uniformly and continuously fed. Stops machine when choked and removes surplus jute to clear choking. Receives softened stricks or portion of jute while working at receiving end, and gives twist to stricks lunch of handled jute. Ties them up and places them on barrow or semi-cylindrical containers for removal for further processing. Watches steady flow of emulsion through valve to ensure required quantum of moisture for processing as directed. Cleans and oils

machine and reports defects in machine for rectification. May bring sorted jute from bins and stack it near feed-end of machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.2100

Root Cutter, Jute

Root Cutter, Jute cuts hard and surplus roots of jute by knife. Carries softened jute from file to root cutting knife. Picks up handful of softened jute and arranges hard and surplus jute ends evenly. Places root ends over knife at Breaker dollop table, clips them off and carries root cuttings to weighing scale. Ensures that usable jute is not cut and wasted. May carry jute to softening machine. Is designated as CHOPPER, JUTE if engaged in chopping off hard root ends of special quality jute by heavy knife and combing large morah (twisted jute) prior to selection by Selector, Jute.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.2200

Teaser (Feeder and Receiver) Jute

Teaser (Feeder and Receiver), Jute tends teasing machine which breaks up matted jute fibre and remove dust and foreign matter. Starts teaser machine. Picks up handful of waste jute, cuttings, hard roots, thread waste, ropes, etc. placed near feed end and spreads them evenly on lattice of machine. Ensures continuous feeding to

obtain regular flow of teased and cleaned jute and delivery end. Stops machine when jammed and removes surplus jute to clear obstruction. Reports defect if any for rectification. Receives teased and cleaned jute at delivery end. May carry teased material to breaker feeding line. May also oil and clean machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.2300

Fibre Preparer, Coir

Fibre Preparer Coir prepares fibre from coconut husks. Dumps coconut husks in convenient place in lake, covers them completely on top with strong net or palm leaves and places stones over dump to sink coconut husks under water. Keeps dump under water for specified period. Removes husks (now called retted husk) from water to open space to drain off water. Holds one small piece of retted husk on wooden block with one hand and beats it with iron or wooden rod with other to release fibres from husk. Pulls out outer cover of husk by hand. Continues beating till all fibres in husk are released. Spreads fibres in sun for drying. Collects dried fibre in one place, beats them with long thin stick; removes remnant of pith; if any and loosens and softens fibre. May spin coir yarn from fibre by hand or hand spinning wheel (charkha).

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.2700

Card Tenter, Cotton/Carding Tenter

Card Tenter, Cotton; Liner; Can Carrier; Can Minder; Can Boy (Cotton Textile) tends carding machine which cleans and transforms lap of cotton into sliver (rope like untwisted strand). Fixes and adjusts laps of cotton on brackets at back of machine for carding. Places end of lap (roll of cotton sheet) between feed roll and feed plate. Places empty cans in front machine to receive sliver. Starts and cleans machine after stripping (removing of short fibres) of cylinder and doffer done by Card Strippers. Collects web (thin fibres formed of matted fibres), ensuing from doffer, threads it through calender rolls and pieces (joins) with sliver in can. Ensures regular feeding of cotton into machine and attends to breaks in web and sliver front (delivery end). Replaces filled cans with empty ones. Removes filled cans to draw-frame section and fetches empty ones. Locates operational defects in machine, and sets them right. Reports major defects to Jobber for rectification. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 7318
Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.2800

Set Framer, Silk

Set Framer, Silk operates set frame machine to make silk into silver. Switches on set frame to move comb up and down which carries fibres through it. Feeds silk laps one after another. Pieces broken ends with hand to keep continuous flow. Condenses fibres coming out through trumpet (part of machine) into one sliver. Oils and cleans machine.

ISCO 08 Unit Group Details:

Code 7318
Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.2900

**Sliver-Lap-Man/Combing
Preparatory Operator**

Sliver-Lap-Man; (Cotton Textile) tends sliver lap-machine to convert several slivers into single lap for feeding ribbon lap or combing machine. Collects and arranges sliver cans at feed end of sliver-lap-machine. Pulls out ends of slivers and feeds them on to rollers through guides by hand. Starts machine, watches sliver ends running through machine and joins broken ends. Maintains continuous flow of sliver by regular feed avoiding jamming. Stops machine when jammed and draws out surplus sliver to clear jamming. Moves wheel with hand to remove lap cover. Pulls out spindle wheel to facilitate removal of lap at delivery end. Removes lap from delivery disc and places it on creel and re-fixes bobbin, cover, etc. Starts machine to transform lap. Cleans machine and removes sliver dropping. Locates operational defects on machine and removes them. May carry lap to Ribbon-Lap-Man of Comber and bring back empty spools. May tend ribbon-lap-machine.

ISCO 08 Unit Group Details:

Code 7318
Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.3400

**Comb Minder/Combing
Preparatory Operator**

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Comb Minder; Comber (Woollen Textile) tends combing machine for combing wool to remove foreign matter and to separate short fibres from long fibres required for worsted yarn. Places balls of sliver on creel of machine. Passes ends of sliver from balls through guides and places ends on comb circle. Starts machine and threads sliver, coming out of drawing rollers, through funnel into can at delivery end. Joins broken ends and places new balls on creel of machine when necessary. Replaces full cans with empty ones at delivery end. Removes noil (short fibres of wool separated from longer fibres by combing) from underneath machine. Oils and cleans machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.3500

Gill Box Man

Gill-Box-Man; Gill-Box Minder (Woollen Textile) tends gill-box machine for placing wool fibres in line and blending several slivers of wool into one sliver of uniform thickness. Places cans or balls of sliver in positions on floor at feed end of machine. Takes ends of sliver from each can or ball, passes them through back roller, and squeezes them through gathering eye to front roller. Starts machine. Passes end of sliver combing out at delivery end through guide into receiving can or loops it around spindle or empty bobbin. Watches processing from feed to delivery end. Joins broken ends as and when necessary. Fixes new balls to replace exhausted balls at feed end to ensure regular feed. Removes fibres from leather sheet after sopping machine when jammed. Collects processed sliver and removes filled cans,

wound balls or full bobbins at delivery end. Removes waste from machine and leather sheet. Cleans machine. May operate finishing gill-box-machine on which sliver balls are fixed at creel and bobbin at delivery end.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.3600

Spreader Feeder, Jute

Spreader Feeder, Jute tends goods jute spreader machine to spread, smoothen and transform jute into sliver. Starts machine and feeds jute by hand to lattice feeder of machine to carry hard jute through rollers, fast chain, slow chain, etc. for softening and transforming jute into sliver. Spreads jute by hand, uniformly on lattice. Watches indicator to check weight for regulating feed. Switches off machine when jammed and pulls out surplus or jammed jute by hand to clear jamming. Cleans and oils machine. May work on jute softener machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.3700

Spreader, Receiver, Jute

Spreader Receiver, Jute removes balls of jute sliver from delivery end of goods jute spreader machine and carries them to Breaker Feeder. Guides flow of jute by

hand into Emerson tray. Sprays emulsion (Emerson solution) through pipe to moisten jute. Observes Emerson watch reading and regulates feed of solution according to requirement. Watches formation of sliver lap into rolls by automatic roll former. Avoids jamming at delivery end. Removes sliver roll from automatic roll stand and carries it to feed end of breaker feeder machine for further processing. Cleans delivery end of spreader. May tend spreader feeder machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials**7318.3800****7318.4000****7318.4200****Hand Spinner (Cotton and Woollen
Textile)**

Hand Spinner, (Cotton and Woollen Textile) spins yarn from cotton or wool using 'charkha' (spinning wheel). Loops small length of yarn around spindle of charkha, holds end of yarn length along with sliver of cotton or wool in left hand, turns spinning wheel by right hand simultaneously withdrawing left hand slowly to draw and spin yarn. Stops charkha when arm length of yarn has been drawn and spun and winds yarn on spindle. Removes cop of yarn from spindle when it is full. May also spin yarn using 'Takli'(hand spinning spindle).

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials**7318.4300****Piecer**

Piecer; Ring Spinner; Ring Piecer; Sider (Cotton and Woollen Textile) tend number of spindles on ring frame for converting rovings into spun yarn. Puts bobbins filled on inter or roving machines in creel of ring machine and threads ends through guides and drafting rollers. Locates broken ends of yarn, lifts bobbin from live spindle and unreels some yarn from it, replaces bobbin on spindle, threads yarn through guide and ring traveller and joins it with other end. Replaces empty roving bobbins in creel with filled ones, joining tail end with leading end. Gets filled yarn bobbins replaced with empty ones by Doffer, Spinning. Cleans top clearers and machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials**7318.4500****Spinner, Jute**

Spinner, Jute tends number of spindles on spinning frame for converting jute sliver received from drawing frame into yarn. Arranges s liver cans at back or spinning frame. Lowers spindles on frame and directs Doffer to fit empty bobbins on spindles. Pulls, ends of sliver on bobbins and passes them through guides and drafting rollers. Switches on spinning frame to get slivers spun and converted into yarn. Pieces (joins) broken ends and ensures regular flow of slivers from cans. Replaces filled bobbins by empty ones. Checks jamming of machine, removes surplus jute yarn, and ensures that

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machine and bobbins run properly. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.4600

Spinner, Coir

Spinner, Coir spins coir yarn from coconut fibres by using spinning wheel. Collects small quantity of fibre and puts it in lap, Loops fibre on spindle of spinning wheel. Rotates wheel by turning its handle. Walks backward with twisted fibre in hand and feeds required fibre from lap to form coir yarns. Stops rotation of wheel when yarns on both spindles reach specified length. Pieces together ends of two yarns and loops it on spindle of another spinning wheel placed opposite to first. Rotates wheels of both spinning wheels. Holds oblong wooden device with grooves in between two yarns. Moves wooden device and second spinning wheel forward to get two yarns twisted and form into one yarn. Removes ends of yarn loops on spindle of first spinning wheel and twists two ends together by hand. Makes hank of yarn by hand and keeps hank aside. May prepare coir fibre from retted coconut husk.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.4700

Twister

Twister; Doubling Piecer; Doubling Sider; Thrower (Textile) tends twisting machine

for twisting yarn to give it strength. Mounts filled bobbins, cheeses or ones on creel of machine. Places empty bobbins on spindles of machines. Threads ends of yarn from filled bobbins through guides and travellers and loops them on empty bobbins. Starts machine. Joins ends when yarn breaks. Removes bobbins when filled with twisted yarn. Is known as DOUBLER when twisting two or more strands of yarn.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.4800

Doffer, Spinning/Ring Spinning Doffer

Doffer, Spinning; Doffer, Ring Frame; Garter; Shifter replaces filled bobbins with empty one on spindles of spinning frame. Brings and arranges sliver canes behind spinning frame. Brings empty bobbins in doffing boxes or baskets and set them in spindles of spinning frame. Watches winding of yarns on bobbins. Lifts filled bobbins from spindles and collects them in tray or baskets. Collects waste and removes them to godown. Keeps machine sides and department clean. May help Piecer in piecing broken ends of yarn and creeling and changing ring travellers. May clean bobbins. May perform miscellaneous duties as required.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.4900

Knotter, Silk

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Knotter, Silk tends reeling machine to draw composite silk filament from reeling basin to wooden reel. Collects and mounts wooden reel on machine. Draws and wraps ends of silk filament on reel. Switches on machine by releasing brake to wind filament on reel. Watches operation and joins ends when filament gets broken. May do reeling and cooking of cocoons.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.5000

Beam Gaiter

Beam Gaiter; Beam Binder (Textile) prepares loom for weaving cloth. Checks that warp beam is properly mounted on brackets of loom. Sets healds, reed and drop wires into position, ties warp ends to tail ends of cloth beam and places weft bobbins in shuttles. Operates loom manually to check movements of healds, shuttle and reed and makes necessary adjustments. Hands over loom to Weaver, Power loom for operation.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.5100

Lacer, Hand

Lacer, Hand (Textile) laces together punched cards in proper sequence to be used on jacquard; loom for weaving cloth of different designs. Collects punched cards and arranges them in proper sequence on lacing table or stand. Cuts required length of lace. Passes lace by

hand through holes made particularly for tying cards together to make design to be used on jacquard machine for weaving cloth of different patterns. Carries card chain to loom. May fix card chain on jacquard loom. May assist in handling defective jacquard.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.5200

Lattice Pegger

Lattice Pegger; Lattice Man fixes pegs on lattice (wooden pattern chain) used on dobby loom for controlling fancy pattern weaving. Collects graph paper with marked draft and peg plan. Calculates number of pegs of lattice required to make out complete design. Studies peg plan to know places where warp is to be raised over weft. Inserts wooden pegs into lattice as per diagram to control pattern on cloth to be woven. Carries lattice to dobby loom. Fixes and adjusts heald and pegged lattice on loom. Repairs old, broken and defective lattice. May assist in handling dobbies. May make draft, prepare peg plan and sketch designs on graph paper. May cut and lace cards.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.5300

Reacher, Hand (Textile)

Reacher, Hand (Textile) assists Drawer in drawing ends of yarn through healds and reeds. Picks up correct ends of yarn and

lays them over drawing hook to be pulled by Drawer. Cleans healds and reeds.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.5500

Weaver Power Loom

Weaver Power Loom operates and tends power loom to weave cloth, checks that shuttles are in position and supplied with full weft bobbins, no warp yarn is broken and that set-up is ready. Starts loom. Watches looms under his charge for defects in weaving. Locates broken ends of warp yarn, ties short length of yarn to broken end from warp beam, draws end through drop wire, healds and reeds using reed hook, ties it to other end with a weaver's knot, and starts loom again. Stops loom to remove defects caused by mispicks. Cuts and pulls out filling of weft yarn up to point of defect, adjusts and starts loom. Replaces empty bobbin in shuttles. Cuts cloth when cloth roll becomes full.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.5800

Weaver, Handloom

Weaver Handloom weaves cloth from yarn on handloom. Mounts warp beam on loom. Sets heald frame in position. Draws ends of warp yarn from beam through comb and fastens them together to cloth winding roll. Places full bobbins of weft yarn in shuttle. Operates loom by pressing and relieving two foot levers alternately to

raise and lower heald, simultaneously pulling string with jerk with one hand so as to throw shuttle across warp yarn from side to side and by moving comb forward and backward with other hand to properly fill weft yarn. Draws broken ends of yarn through heald and comb and knots them. Replaces empty bobbins in shuttles. Removes cloth from roll when required length has been woven. May size and dye yarn, wind yarn on bobbins or beam and draw ends of yarn from warp beam through healds preparatory to weaving.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.5900

Carpet Weaver, Hand Knitting

Carpet Weaver, Hand Knotting weaves woollen or cotton carpets and druggets on handloom. Studies design and colour combination from chart. Determines number of knots involved in pattern by counting graphical squares as instructed. Counts and determines number and length of warp strands required in single colour weaving of particular size of carpet. Prepares cotton yarn for warp by processes of bleaching, dyeing as required. Wind by hand requisite number of cotton strands on warp beam according to quality and number of stitches required. Draws ends from warp-beam and ties them to carpet beam. Collects woollen yarn and winds it by hand into balls. Hands woollen balls from roof near loom to facilitate pulling and weaving of yarn. Sets and adjusts loom. Determines number of weavers required according to size of carpet. Passes and draws weft yarn through alternate warp strands by hand to weave fringe of carpet. Ties knots of

woollen yarn on each strand of warp. Cuts yarn after each knot at fixed length to maintain required thickness. Moves heald (part of loom mechanism) through control string for interlacement of warp; Passes and adds two layers of thread or jute yarn through warp sheds for holding woollen knots or pile; presses knots and weft filling by hand work to ensure even stiffness. Trims off extra fibre at intervals using hand shears.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.6000

Carpet Clipper, Hand

Carpet Clipper, Hand; Carpet Trimmer, Hand clips extra fibres from upper side of carpet to give it smooth finish. Spreads carpet on even surface and rubs and scraps surface with scraper or metal comb to align and raise fibres. Clips excess fibres with and shears. May mend and repair carpets.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.6100

Carpet Embosser

Carpet Embosser; Carpet Carver trims edges of floral designs or patterns on carpet to give raised appearance. Spreads carpet on even surface. On floral design cuts wool with hand scissors to give raised appearance to design. Chalks around or stencils outline of designs on carpet and creates embossed effect by clipping wool

either wholly under or wholly outside design. May prepare designs.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.6200

Carpet Repairer

Carpet Repairer repairs and gives final finish to carpets and rugs. Stretches carpet on flat surface. Rubs red or coloured chalk on separate string. Sets it straight against edge of stretched carpet. Strikes coloured string over edge of carpet to mark straight line. Cuts marked edges, using knife, to bring carpet to required measurement. Binds and trims cut edges using needle and thread. Checks front and back of carpet for gaps in knots and badly woven parts, and corrects any defects by stitching loose knots and repairing cuts and damaged portions. May apply stiffening solution to back of loosely woven carpet.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.6300

Coir Weaver (Matting)

Coir Weaver (Matting) weaves coir matting on handloom. Mounts wrap beam on loom. Sets heald frame in position. Draws ends of warp yarn from beam through healds and reeds (beater) and fasten ends to mat winding roll. Places quill of required colour into shuttle. Presses and relieves levers alternately to raise and lower heald according to weaving design, operates shuttle from

end to end to weave matting. Moves beater forward and backwards forcibly by hands to fill weft yarn. Passes wooden rod between weft and beater and moves beater forward and backward again to fill weft. Removes rod and repeats operation using quills of specified colour according to pattern of matting required. Draws broken ends of yarn through heald and reed and knots them. Cuts fibres projecting upwards with shears according to thickness of mat required. Rolls matting on mat winding roll by pressing lever. Removes matting from roll when required length is woven. May do bleaching and dyeing of coir.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.6400

Net Maker, Hand

Net Maker, Hand makes nets and meshes by weaving twine and thread with netting needle or shuttle. Selects design of netting and kind of twine or thread required. Plaits (interweaves) and knots twine or thread with netting needle or shuttle to prepare selected patterns. Waxes twine while weaving to smoothen and strengthen it. Trims excess twine or thread.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.6500

Crochet Worker, Hand

Crochet Worker Hand; Crocheter, Hand; Lace Maker, Hand knits lace, trimmings, etc. with hand crocheting hook or needle. Selects pattern of lace or trimmings to be prepared and studies it for size and number of stitches to be made. Selects suitable colour and quality of thread and required type of crocheting needle. Rolls thread into balls for convenience of knitting. Threads hand crocheting needle and moves it around thread for making loops and knots to knit desired pattern. Checks work while knitting to ensure conformity with pattern and smoothens out knitted article on finish. May operate crocheting machine.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.6600

Knitter, Hand

Knitter, Hand knits sweaters, dresses, socks and other articles by hand with woollen yarn according to specified pattern. Decides shade, number and type of woollen yarn to be used and selects pair of knitting needles accordingly. Measures sample or determines size of article to be knitted and knits it by making loops and picks with knitting needles, according to specified or selected pattern. Knits article part by part and finishes it by sewing them together and pressing. May use single flexible wire needle or more than two needles for knitting specific items according to pattern of knitting desired. May knit articles with cotton or silk yarns.

ISCO 08 Unit Group Details:

Code 7318

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.6700

Braid Maker, Hand

Braid Maker, Hand makes braid by hand. Interlaces and entwines strands of wool, silk, linen or thread to make ribbon-like or cord-like fabrics for binding or for ornamental purposes.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

7318.9900

Handicraft Workers in Textiles, Leather and Related Materials, Others

Weavers, Knitters, and Related Workers, Other include all other workers engaged in knitting articles by hand or machine, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7318

Title Handicraft Workers in Textiles,
Leather and Related Materials

Family 7319 Handicrafts Workers, Not Elsewhere Classified

This family covers handicraft workers who perform traditional handicrafts not classified elsewhere. For instance, the family includes traditional handicraft workers in non-precious metals and stone.

Group 732

Printing Trades Workers

Printing Trades workers compose and set type prior to printing, set up and operate printing presses, bind and finish printed products, and prepare stencils and operate screen printing equipment

Occupations in this Group are classified into the following Families:

7321 Pre-press Technicians

7322 Printers

7323 Print Finishing and Binding
Workers

Family 7321 Pre-press Technicians

Pre-press Technicians proof, format, set and compose text and graphics into a form suitable for use in various printing processes and representation in other visual media.

7321.0100 Compositor, Hand

Compositor, Hand, sets type by hand for printing. Picks up type from case and assembles them into words and lines in composing stick. Arranges even spacing of lines. Transfers composed matter to galley. Follows manuscript rigidly but breaks up words at end of a line when necessary. Revises composed matter according to corrections made in proof. May create matter by positioning blocks and arranging type for effective display. May also distribute type into case after matter is printed.

ISCO 08 Unit Group Details:

Code 7321

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Pre-press Technicians

7321.0200

Imposter

Imposter; Imposer removes composed matter from galley and arranges it on imposing stone in prescribed pattern so that, when printed, pages can be conveniently arranged in number series. (Pattern differ according to number of pages on each printing sheet). Fixes spacing of margin using wooden chips, leads and hammer and locks matter in chase.

ISCO 08 Unit Group Details:

Code 7321

Title Pre-press Technicians

7321.0300

Distributor (Letter Press)

Distributor (Letter Press) distributes types and other material utilised in composing to their respective cases and racks in store room. Unlocks chase, separates spacing material, types and blocks, if any, and keeps them in respective cases and racks; packs and labels composed material in paper for further use if required; separates types and spacing material surplus to requirements, and keeps them aside for melting. May do composing and imposing work.

ISCO 08 Unit Group Details:

Code 7321

Title Pre-press Technicians

7321.0400

Composing Room Operatives

Composing Room Operatives perform variety of routine and low skilled tasks,

such as pulling galley proof or cylinder proof, stacking formes in racks or carrying them from racks for printing, washing composed matter, etc., and be known as: Forme Carrier carries formes from composing room to Printing-Machine Man, cleans type-heads in formes with water and wire brush to remove ink and dust; carries formes to distributors. Proof Pressman (Galley/Forme) pulls proof for proof reading in galley forme in initial stages of printing, or when type-formes have been imposed and locked in chase. Galley Proof Man if operates flat bed printing machine to obtain impression on paper from types heads in galley; places galley with composed type on bed of machine; applies printing ink with ink roller manually; places sheet of paper on type and manually operates machine to press paper on to type; removes printed paper and checks clarity of impression. May take galley proof to Proof Reader. Oils and cleans machine.

ISCO 08 Unit Group Details:

Code 7321

Title Pre-press

Technicians

7321.0500

Stereo Matrix Moulder

Stereo Matrix Moulder; Matrix Maker operates hydraulic or hand press to obtain print impressions on flong (specially prepared thick sheet of paper) for casting printing plates used in rotary printing. Damps flong, places it on forme, spreads chase or page rubber sheet or extra sheets of thick paper on flong for padding to protect flong from damage on application of pressure from press head; sets machine and adjusts press head for correct pressure to be applied on flong; starts machine and lowers press head on

assembly to impress type into flong; stops machine and releases pressure from matrix and carefully strips matrix from chase; checks surface of matrix for any unevenness in imprint and smoothens surface with blunt wooden blade and trims edges of matrix with scissors; turns mould face down and fills in hollows on back of mould with pieces of heavy paper or felt to prevent it bending during casting process; applies French chalk powder over entire surface of matrix and cleans it with fine hand brush. Delivers prepared matrix to Stereo Type Caster for casting rotary printing plates with it. Cleans and oils machine. May dress printing plate (metallic plate cast by pouring molten metal over matrix in casting machine) on routing and cutting machine. May cast printing plate.

ISCO 08 Unit Group Details:

Code 7321
Title Pre-press Technicians

7321.0600**Stereotype Caster**

Stereotype Caster; Rotary Caster prepares plates for rotary or flat-bed printing by operating casting machine. Dries matrix on roaster and places it in correct position in casting box. Checks supply of metal at correct temperature for casting and operates machines to pump molten metal from crucible against matrix. Removes plates after cooling, for finishing. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 7321
Title Pre-press Technicians

7321.0700**Electrotyper**

Electrotyper performs all or several tasks in making printing plates from set-up type by electro-plating process, using hand tools, electro-plating equipment and metal casting, trimming and forming machines. Places set up type on bed of hydraulic press. Lays wax-coated sheet of metal or sheet of plastic or lead on type and presses it to make mould. Removes mould from press and trims its edges. Sprays or coats mould with electro-conductive substances and places it in electrolytic bath until shell of desired thickness has formed on mould. Removes shell from mould by rinsing it in hot water and fills back of shell with molten lead to form plate, using pouring lead or casting machine. Examines plate with magnifier to detect imperfect formation of halftone dots, lines and types and rectifies them using engraver's hand tools. Shaves, trims, smoothens and bends plate using hand tools and machines as required, in readiness for printing. May print proof from plate and make new plate if necessary. May be designated according to tasks performed such as ELECTROTYPE CASTER, ELECTROTYPE MOULDER, etc.

ISCO 08 Unit Group Details:

Code 7321
Title Pre-press Technicians

7321.0800**Lithographic Artist**

Lithographic Artist exposes sensitized metal plate to positive or negative film, using vacuum frame, to produce offset lithographic printing plates. Increases or reduces size of photographic dots by chemical or photomechanical methods on halftone negatives or positives to be used in preparation of lithographic printing plates. Punches holes in light-sensitive

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

plate with register punch and insert register pins in holes to prepare plate for contact with positive or negative film. Places plate on bed of vacuum frame and inserts positives or negatives on register pins to align positives or negatives with each other. Places masking paper on areas of plate not covered by positives or negatives to prevent exposure of those areas. Examines film on light table to determine specified colour and colour balance, using magnifying glass or densitometer. Compares proof print of colour separation negative or positive with customer's original sample or copy and standard colour chart to determine accuracy of reproduction. Identifies and marks colour discrepancies on print and film. Prepares dyes or other chemical solutions according to standard formulas and applies solution to produce colour effect by chemical method. Blocks out or modifies colour shades of film, using template, brushes, and opaque. Places masks over separation negatives or positives and exposes film for specified time, using contact frame and automatic film processors to reduce size of photographic dots to increase or reduce colour. Applies opaque to block out blemishes and pinholes.

ISCO 08 Unit Group Details:

Code 321
Title Pre-press Technicians

7321.0801 Circuit Imaging Operator

Circuit Imaging Operator imprints the requisite circuit with the help of UV rays through machine on to the laminated board. A Circuit Imaging Operator captures the requisite circuit on the laminated panel. A positive UV translucent film is placed on the photo sensitised

board. The film is required to be opaque in regions where the circuit trace is necessary and is clear elsewhere. On exposure to UV, the photo resist under the clear portions of the film get cured without affecting the area under opaque portions of the film. A Circuit Imaging Operator captures the requisite circuit on the laminated panel. A positive UV translucent film is placed on the photo sensitised board. The film is required to be opaque in regions where the circuit trace is necessary and is clear elsewhere. On exposure to UV, the photo resist under the clear portions of the film get cured without affecting the area under opaque portions of the film.

Qualification Pack Details:

QP NOS Reference	ELE/Q2101
QP NOS Name	Circuit Imaging Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7321
Title	Pre-press Technicians

7321.0802 Circuit Imaging Operator-Photo Imaging

Circuit Imaging Operator-Photo Imaging is also known as 'Photo Imaging Operator', the Circuit Imaging Operator imprints the circuit design layout on the laminated printed circuit board (PCB) with ultraviolet (UV) light exposure. The individual at work places the circuit design layout printed on a 'positive' translucent film on the laminated and photo-sensitive PCB panel and exposes it to UV light, thereby curing the photo-resist under the clear portions of the film in order to get the circuit printed onto the panel.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	ELE/Q2201
QP NOS Name	Circuit Imaging
	Operator-Photo
	Imaging
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7321
Title	Pre-press Technicians

7321.0900

Retoucher, Lithographic

Retoucher, Lithographic; Photoengraving Finisher; Process Artist-Lithographic-Colour-Artist Retoucher; Tone Artist refines or corrects imperfections in design on lithographic printing plates by drawing on them with scribbling tools, crayons, pen and ink to make them fit for printing. Intensifies or reduces unsatisfactory tone values, blanks out or changes shades of colours of details to make them less prominent, adds missing details, etc.

ISCO 08 Unit Group Details:

Code	7321
Title	Pre-press Technicians

7321.1000

Mounter/Mounting Machine Operator/CNC Mounting Machine Operator

Mounter fixes etched type or image plate on wooden block for printing. Cuts plate to size, levels its sides, drills holes on bevelled portions and mounts plate on wooden block by nailing.

ISCO 08 Unit Group Details:

Code	7321
Title	Pre-press Technicians

7321.1100

Router

Router reduces level of non-type or image portions of mounted plate to make it non-printable. Clamps block on bed of routing machine, fixes needle to holder, adjusts its height, operates machine and regulates movement of needle which reduces level of portions of plate not required for printing.

ISCO 08 Unit Group Details:

Code	7321
Title	Pre-press Technicians

7321.1200

Cameraman, Photomechanical

Cameraman, Photomechanical; Lithographic Cameraman; Photolithographer photographs illustrations or type set material to obtain line, half tone, continuous tone and colour negatives for use in printing. Places illustrations or types material on copy board of copying frame. Adjusts lights and camera, focuses with help of ground-glass focusing screen, loads plate in dark room, mounts it on camera and exposes it. Uses screen to break up shadings of copy into dots for half-tone printing and uses different colour filters for preparing separate colour-wise plates for printing. May also prepare photo-sensitive glass plate for use in camera.

ISCO 08 Unit Group Details:

Code	7321
Title	Pre-press Technicians

7321.1300

Microstat Cameraman

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Microstat Cameraman; Microfilm Cameraman; Microstat Camera Operator reproduces documents, maps, charts, etc., photographically on special type of camera known as Microstat. Places copy on copy board or copying frame, loads filmstrip in camera, focuses camera, adjusts light and exposes film which is automatically processed. May also enlarge with special enlarging device fitted to this camera.

ISCO 08 Unit Group Details:

Code 321
Title Pre-press Technicians

7321.1400

Photostat Camera Operator/Photocopier Operator

Photostat Camera Operator; Photostat Machine Operator produces copy of drawings, manuscripts and other documents directly on prepared paper by means of a Photostat camera. Mounts document to be copied in glass frame and arranges it under camera lens, places roll of photographic paper in the camera, adjusts distance, focus, time and lights and takes photographs. Cuts and rolls out exposed section of paper into developer which automatically develops the print. Arranges for its drying either in a cabinet or between blotting pads.

ISCO 08 Unit Group Details:

Code 7321
Title Pre-press Technicians

7321.1500

Transferor, Photomechanical

Transferor, Photo Mechanical; Photoengraving Printer; Proof-plate Maker; Helio Operator; Vandyke Printer

transfers impression from photograph negatives to metal plates for subsequent processing or for direct use in lithographic printing. Measures negative for cutting plates (zinc or copper) to size, sensitizes plate by pouring solutions, places plate and negative in contact frame, exposes plate to light, develops it with photo-developing chemicals and dries it.

ISCO 08 Unit Group Details:

Code 7321
Title Pre-press Technicians

7321.1600

Etcher Photo Engraving

Etcher, Photo Engraving Photo Engraver; Etcher Litho-Printing etches designs on surface of photographically printed or pantographically engraved printing rollers and plates, employing knowledge of colours, fabrics and etching and printing techniques. Studies design sheet and determines etching requirements based on colours in design, type, weight of fabric and printing sequence. Lifts roller into brackets of rinsing vat with aid of helper and tapes ends of roller with masking tape to limit etching to specified width, cleans roller or plate preparatory to etching, using sponge, cleaning chemicals and water. Transfers roller from rinsing vat to acid vat with aid of helpers and hoist, agitates acid solution with compressed air and starts machine to start roller in solution to get it etched by acid reaction. Applies acid resisting material on photo-printed design on plate, places it in etching machine and starts machine to spray acid as uncoloured portion of plate to get it etched by acid reaction for etching photo-engraved flat bodies and metal plates. Checks depth of etching periodically by measuring with depth gauge, touch and magnifying glass and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

processes roller through series of acid baths or regulates period of acid spray as necessary to etch photo-engraved roller or plate to required depth, watches and dries treated plate or roller, applies acid resistant powder or charcoal into etched cavities and repeats etching process if necessary. Cleans off charcoal and acid resistant coating by washing and brushing with alkali solution and water. May touch up defective areas by hand etching.

ISCO 08 Unit Group Details:

Code 7321
Title Pre-press Technicians

7321.1700

Barman, Lino Machine

Barman, Lino-Machine cleans space band, mould surface and metal pot of lino-typesetting machine and removes types which are stuck when bar of machine gets jammed. Unlocks mould surface from machine and cleans it with wire brush applying graphite with rag to remove metallic particles and dust to prevent clogging during operation; cleans metal pot to remove traces of metal particles from inside surface; removes matrices which cause obstruction to movement of distribution bar on machine for removing defects. Oils various parts of machine. May change measurement lines in mould of machine, if required, and supply lead bricks to metal pot.

ISCO 08 Unit Group Details:

Code 7321
Title Pre-press Technicians

7321.9900

Pre-Press Technicians, Others

Pre-Press Technicians, Others include workers who engrave lithographic stones and printing plates, rollers, dies and blocks by various processes not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7321
Title Pre-press Technicians

Family 7322 Printers

Printers set up and operate digital, letterpress, lithographic, flexographic, gravure, newspaper and other printing presses.

7322.0100

Job Printer

Job Printer composes matter by hand and prints it on manually operated machine. Sets type by hand, takes and corrects proof, imposes matter in galley and prints by manually operated printing machine, thus performing duties of Hand Compositor, Proof Reader, Impositor, Handpress Man, Handprinting Machine Man.

ISCO 08 Unit Group Details:

Code 7322
Title Printers

7322.0200

Lino Operator

Lino Operator; Lino-typesetting Machine Operator; Intertype Machine Operator; Composing Machine Operator lino type operates key-board (similar to that of typewriter) of lino-type setting or inter-type setting machine, to cast lines of type

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

called slugs. Adjusts machine according to size of type and length of line to be formed. Presses keys of keyboard to assemble matrices to form words and lines following manuscript rigidly. Breaks up words if necessary at end of each line. Presses button at end of each composed line to enable machine to cast whole line of type automatically. Casts new lines removing errors pointed out by Proof Reader. Ensures that Barman cleans machine and space band, distributes matrices into magazine of machine and keeps metal pot full.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.0300

Mono Operator

Mono Operator; Monotype Key-Board Operator; Composing Machine Operator, Monotype which makes perforations on spool of paper used for casting types of printing. Sets machine to ensure correct spacing and adjusts line-length indicator. Mounts spool of paper on machine and operates key-board following manuscript at end of each line. Tears off perforated strip from spool when all matter of manuscript has been transferred on it.

Qualification Pack Details:

QP NOS Reference
QP NOS Name
NSQF Level

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.0400

Mono Caster

Mono Caster; Caster Operator; Monotype Caster tends automatic machine that casts and composes types. Places on machine spool of paper perforated by Mono Operator and attaches it to winding roll. Sets composing stick to required length, inserts matrix case of required size of type and locks galley on bed of machine. Starts machine. Ensures that metal pot is adequately supplied with metal and maintains proper temperature of molten metal. Stops machine when galley is full or casting is completed. Removes galley from machine for taking proof. May clean and oil machine.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.0500

Type Caster

Type Caster operates type-casting machine for casting types for printing. Selects and fits appropriate metal mould and matrix to machine, depending on size and nature of types to be cast; sets machine to required performance, aligns matrix and mould using gauzes, screws etc., and closes die case bridge of machine; cleans lead chamber and nozzle of plunger of lead chamber with metal rod; fills lead chamber with lead blocks for melting; switches on electrical mechanism in machine or lights coal in fire-box below lead chamber to heat metal pot to melt lead blocks. Checks and maintains correct temperature of molten lead to ensure proper moulding; starts machine, opens water circulation system of machine to cool dies during casting operation and observes machine pumping molten lead into die mould, casting types and delivering caste types along table channel; checks whether caste type conforms to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

specifications; removes slag from molten lead chamber periodically to keep molten liquid free from impurities; cleans and oils machine. May clean and dress caste types. May caste brass or other metal types.

ISCO 08 Unit Group Details:

Code 7322
Title Printers

7322.0600

Maker-up, Photo Type Setting

Maker-up, Photo-Type-Setting arranges photo-composed type film and fixes it on paper (positive) in readiness for reproduction on printing plates. Examines lay-out of copy. Marks positive to guide in arranging type and draws lines on positions for decoration purposes and tabular matter. Waxes proof-sheets of photo-composition and cuts out letters and lines as required. Places cut-out pieces in position on paper using measuring instruments for guidance. Presses sheet of tissue paper over photo-composition to ensure that wax holds pieces in position. Checks arrangement of composition and makes necessary alterations. Passes on completed positive for printing reproduction.

ISCO 08 Unit Group Details:

Code 7322
Title Printers

7322.0700

Photo Type Setting Machine Operator

Photo Type-Setting Machine Operator operates key-board of machine which reproduces letters on film or sensitized paper for reproduction in printing. Places unexposed film or sensitized paper in photographic element of machine.

Examines lay-out copy for typographical indications, such as spacing, typefaces and length of lines. Starts machine and sets its dial according to typographical instructions on layout copy. Reads copy and depresses keys of keyboard to reproduce required letters on film or sensitized paper. Manipulates machine controls as necessary to change type size and spacing, adjust camera light and eliminate incorrect lines. Removes container with exposed film or sensitized paper on completion of operation and sends it to developing room.

ISCO 08 Unit Group Details:

Code 7322
Title Printers

7322.0800

Type Dresser

Type Dresser; Type Cutter dresses cast types by cutting and grinding to make them uniform for use in composing. Arranges cast type on grooved stick, transfers and secures them to metal dressing rod by screw. Places metal rod in position on table and files side surfaces of types to remove unevenness; cuts, groove on one side of type using metal planer to chip off bottom portion to make them uniform in height; checks dressed types for burr and sharp edges and removes them by grinding and polishing with emery paper to obtain smooth surface; transfers dressed type back to wooden stick for sorting and packing. May sort types into founts (different types of letters, figures, etc.) for packing.

ISCO 08 Unit Group Details:

Code 7322
Title Printers

7322.0900

Roller Maker, Paper Printing

Roller Maker, Paper Printing casts rollers from roller composition (product of glue and glycerine) for use in printing. Cuts composition into small pieces and melts them in glue-pot; cleans and oils inside surface of cylindrical mould; winds jute cord round steel stalk and places it inside mould; melts composition in electric furnace controlling heat to prevent molten composition from over burning; fixes mould in metallic stand, pours molten solution in mould to required level and allows it to set; removes roller from mould, trims and polishes surface. May do repair work. May evolve own composition.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1000**Braille-Duplicating-Machine Operator (Printing and Publishing)**

Braille-Duplicating-Machine Operator tends equipment to reproduce Braille-embossed pages, using one of following methods: (1) Places master page on screen bed. Places roll of treated paper on stand. Threads paper through equipment and locks paper in clamping frame. Pulls heat unit over clamping frame. Depresses pedal or handle to lower clamping frame onto screen bed and to create vacuum that forms braille impressions. Pushes heat unit from bed. Releases pedal or handle to raise clamping frame, and releases catch on frame to draw reproduced copy through equipment. Repeats process to make required number of copies. Cuts copies apart, using scissors. Writes identifying information, such as page number or title, on each copy. (2) Positions master page on screen bed.

Places sheet of heat-sensitive plastic paper over page and lowers clamping frame to lock page into position on bed. Pulls heat unit over clamping frame to activate vacuum pump trip-lever. Holds heat unit over frame to form braille impressions. Pushes heat unit from bed to release vacuum. Raises frame to release individual copy. Repeats process to make required number of copies.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1100**Stencil Cutter, Silk Screen Printing**

Stencil Cutter, Silk Screen Printing cuts stencils by hand, according to design, for use in silk-screen printing. Superimposes shellacked transparent paper on design of matter, to be reproduced and cuts with knife outline of design in shellac without cutting paper. Irons paper on silk screen to transfer shellac stencil to it. Cuts different stencils for each colour to be reproduced. May draw design directly on screen and fill in surfaces around design with glue lacquer or paper. May operate silk-screen printing equipment. May cut stencils for use in making computer circuit plug boards and be designated as SILK SCREEN LAY OUT DRAUGHTSMAN.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1200**Silk Screen Printer**

Silk Screen Printer prints on paper, metal textile and other materials by means of silk-screen process. Mounts stencil of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

matter to be printed on silk screen. Stretches and fits silk screen on printing frame. Bolts printing frame to hinged outer frame on printing table. Places paper or other material to be printed accurately in position and lowers screen on to it. Draws squeegee dipped in paint across screen to transfer design to object. Lifts screen, removes printed material and repeats process to obtain required number of prints. Cleans screen with solvent at end of run or when colour of print is to be changed. May use different screens for each colour to be reproduced.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1300

Printing Jobber

Printing Jobber; Printing Machine Man; Printer (Textile) prints patterns of various designs and colours of cloth by operating printing machine. Checks condition of belts, gears, doctor blade, lapping of drum or cylinder etc. Sets engraved rollers. Runs test piece of cloth through machine and compares it with sample. Makes necessary adjustments to rollers and doctor blade. Regulates pressure and speed. Grinds and sharpens doctor blade when necessary. Supervises work of Frontman and Printing Machine Operatives. Ensures proper colour mixing, colour matching, quality of printing production and upkeep of machine, etc.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1400

Colour Maker (Textile Product)

Colour Maker (Textile Product) operates machines to mix or grind daub, printing ink colour, and colour pigments, for artificial leather: Calculates batch size according to roll yardage to be coated. Weighs and measures, according to formula, components, such as ball mill mix, colour pigments, and oils to attain colours and specified consistency. Moves components to agitator or ball mill mixers and roll grinders for processing, using hand truck. Dumps ingredients into and starts machines that grind and mix them. Collects colour sample and compares it with colour standard. Adds ingredients, such as white, clear, or coloured pigments, or thinner to correct colour discrepancies. Prepares new colour batches when drum content in inventory storage is low. Lifts and moves drums, using portable air-operated hydraulic hoist.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1500

Precision Printing Worker

Precision Printing Worker performs variety of precision printing activities, such as duplication of microfilm and reproduction of graphic arts materials. Operates automatic processor to develop photographs, plates, or base material used in single or multicolour proofs. Sets up and operates bindery equipment to cut, assemble, staple, or bind materials. Maintains printing machinery and equipment. Examines and inspects printed material for clarity of print and specified colour. Mixes powdered ink pigments, using matching book and measuring and mixing tools. Reviews layout and customer order to determine size and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

style of type. Measures density levels of colours or colour guides on proofs, using densitometer, and compares readings to set standards. Prints paper or film copies of completed material from computer. Scans artwork, using optical scanner, which changes image into computer-readable form. Enters, positions, and alters size of text, using computer, to prepare and arrange pages to produce printed materials.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1600

Frontman

Frontman; Assistant Printer; Assistant Printing Machine man (Textile) assists printer in printing patterns of various designs and colours of cloth. Checks operational efficiency of printing machine, adjusting various parts if necessary, and reports defects to Printer. Prepares colours to correct consistency by mixing ingredients in suitable vessel, and test checks shade of colour; fills front colour tray with prepared colour paste; fits and locks printing roller, engraved with design/pattern in position on machine; supervises rolling of cloth into machine ensuring smooth run through various rollers. Starts and stops machine as directed by Printer. Watches printed cloth coming out from engraved rollers for defects in print or shade. May carry out routine repairs on printing machine.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1700

Pressman (Flat-Bed, Letter Press)

Pressman (Flat-Bed Letter Press); Pressman; Hand Fed sets and operates Flat-bed letter press (printing machine in which separate sheets of paper are pressed by means of cylinder or plate (platen) on inked rollers and oils machine; fills ink fountain and regulates flow of ink on inking rollers; locks type in position on bed of press by means of wedges; places wooden block over type and taps it with mallet to level printing surface; packs surface of cylinder, or platen with tissue paper; starts press and pulls proof sheets; examines proof sheets to ensure legibility and uniformity of printing, adjusts press controls, inking fountains, and automatic feeders, and repacks cylinder or plate with overlay to equalize off-level areas as required; pulls out several proof sheets and makes necessary adjustments until evenly printed proof is obtained; sets and adjusts paper guides and feeding mechanism; starts press and ensures that printing proceeds correctly; stops press when printing is completed. May mix inks to match colours, feed paper sheets into machine by hand, or direct helpers to do so, prepare pages of type. May also do minor repairs. Is designated as TREADLE MAN OR PLATEN MACHINE PRESSMAN if works on Hand-fed or automatic platen machine, and CYLINDER PRINTING MACHINE MAN if works on Hand-fed or automatic cylinder printing machine.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1800

Machine Man , Hand Printing

Machine Man, Hand Printing operates cylinder or platen hand press for printing.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Fixes imposed type on bed of printing machine and levels them. Checks up supply of ink in duct, adjusts roller parts, changes packing (paper lining) and runs machine for printing. Ensures uniformity of inking and impression.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.1900

Machine Man, Automatic Printing

Machine Man, Automatic Printing operates cylinder or platen automatic printing machine. Fixes imposed type on bed of machine. Adjusts roller, flow of ink, automatic feeder and speed of machine, changes packing of platen, places paper on automatic feeding board and runs machine for printing. Ensures uniformity of inking and impression. May clean and oil machine.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.2000

Machine Man, Rotary Printing

Machine Man, Rotary Printing; Machine Minder, Rotary Printing; Rotary Operator, Printing sets and operates rotary printing machine that prints on continuous roll of paper by means of stereotype plates locked in a revolving cylinder. Cleans inking rollers and oils machine; fills ink fountains and regulates flow of ink on inking rollers; locks printing plates in position on cylinders. Supervises loading of paper rolls on machine; threads paper through machine guides and rollers; adjusts rollers and paper folding and

cutting mechanism; makes trial run; checks legibility and uniformity of printing, regulates speed and makes further adjustments as necessary, restarts press and runs it to full speed; checks printed copies at regular intervals and ensures that printing, folding and cutting proceed correctly; re-threads paper if web breaks; stops press when required number of copies have been printed, and removes plates. Keeps record of production. May file and grind cutting blades. May load supply rolls of paper in press at beginning and during run. May do minor repairs.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.2100

Machine Man, Offset Printing

Machine Man , Offset Printing; Offset Printer operates offset printing press in which impression from plate is first received on rubber blanket and then transferred to paper. Washes plate with chemical solutions to render non-image portions ink-repellent and to ensure clear impression. Clamps plates firmly on cylinder, places paper roll on automatic feeding stand and fills ink in fountain in machine. Runs machine for printing. Regulates speed of machine and ensures uniformity of inking and impression. Supervises work of Inkers. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.2200

Machine Man, Direct Lithographic Printing

Machine Man, Direct Lithographic Printing; Litho Printer operates direct litho press in which impression is transferred directly from plate or stone to paper. Washes plate with water and positions it on bed of machine. Places paper for printing on feeding board. Adjusts rollers and dampers. Runs machine for printing. Ensures uniformity of inking and impression.

7322.2300 Pressman, Roto Gravure

Pressman, Roto Gravure sets and operates rotary-type press to print illustrative and other subject matter on continuous roll of paper from photo-engraved plates or cylinders upon which printing matter is etched below surface. Cleans inking rollers and oils machine. Installs engraved copper printing cylinder in press, using hand tools. Fills ink fountains and regulates flow of ink. Threads paper through machine guides and rollers and adjusts rollers and paper folding and cutting mechanism. Sets focus of electronic scanners on guide line of paper (for multi-colour printing) to automatically control colour registration. Sets and adjusts scraper blade to remove excess of ink from surface of plate or cylinder. Makes trial run, checks legibility and uniformity of printing on paper and further adjustments, if necessary. Restarts machine, raises it to full speed. Inspects printed copies at regular intervals and adjusts press as required to produce printed matter to specifications. Directs workers in feeding and unloading press, replenishing ink supply in fountains, cleaning equipment and other press operations. Stops press when required number of copies have been printed and

removes plates or cylinders from machine. Maintains prescribed records of production. May file and grind scraping and cutting blades.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

7322.9900

Printers, Others

Printing Press Operatives perform variety of routine and low skilled tasks such as applying ink on type set in hand press, cleaning and oiling printing machines, feeding paper, mounting paper reels and clamping printing plates on rotary machines etc., and be known as: Inkman If fills ink trough on printing machine with liquid ink and applies ink manually with roller on type set in hand press. Machine Attendant If mounts paper reels in position and passes paper through rollers to proper position for printing, clamps printing plates on rotary machines. Feeder Man If feeds paper, piled up on feeding platform, into machine for printing and checks flow of paper sheets into machine and regulates speed of feeding. Deliveryman If takes delivery of printed sheets of paper on printing machine; checks quality of printing and shows periodically samples of printing to Machine Man for necessary adjustment of machine to ensure quality of impression.

ISCO 08 Unit Group Details:

Code	7322
Title	Printers

Family 7323 Print Finishing and Binding Workers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Print finishing and binding workers bind books and other publications, and finish printed products by hand or machine.

7323.0100 Book Binder

Book Binder assembles printed or written pages in the form of books, magazines, ledgers, etc. Performs all or any of operations connected with book binding such as reeling, perforating, cutting, stitching, fixing covers, fixing leather or calico back and corners, embossing letters on covers, gold finishing, etc.

ISCO 08 Unit Group Details:

Code 7323
Title Print Finishing and Binding Workers

7323.0200 Map and Chart Mounter

Map-and-Chart Mounter glues muslin backing or back board to paper maps and charts for reinforcement. Spreads muslin on table and cuts it to specified dimensions, using scissors; applies glue to back of maps and charts with brush or by inserting them between rollers of gluing machine; places glued side of sheet on muslin strip or pre-cut back board and smoothens surface with stiff brush and flat piece of bone; glues paper mounting strip to top edge and oil cloth, reinforcing strip to bottom edge of roll type maps and charts and hangs them on drying rack; applies gelatine sizing and varnishing material on surface of map for preservation and good finish; folds or gathers maps to suitable sizes for easy and convenient handling. May fix wooden

rollers for roll type maps and charts. May do segment map mounting.

ISCO 08 Unit Group Details:

Code 7323
Title Print Finishing and Binding Workers

7323.0300 Book Mender

Book Mender; Book Repairer mends and repairs damaged and worn books, manuscripts, and other records to put them in condition for re-use or resale. Examines damaged books, manuscripts and records and assesses extent of damage; numbers pages and erases disfigurations; cuts covers loose from body and body stitches with knife; cuts or tears carefully damaged pages or linings; repairs damaged pages with transparent tapes; resews body firmly; pastes linings in place, reinforcing as necessary with cloth or paper; trims edges of pages with knife or mechanical cutter; replaces repaired cover or new ones to body; clamps book in press for specified time to bond. May imprint or emboss lettering on cover.

ISCO 08 Unit Group Details:

Code 7323
Title Print Finishing and Binding Workers

7323.0400 Book Binding Worker

Book Binding Workers bind book and perform operations such as those who set and operate machines to fold printed sheets, gather and sew book signatures, make covers and glue them on book

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

edges with plain, mixed colours or gold leaf, etc.

ISCO 08 Unit Group Details:

Code 7323

Title Print Finishing and Binding Workers

7323.0500

Book Binding Operatives

Book Binding Operatives perform variety of routine and low-skilled tasks connected with book binding, such as, cutting paper to specified size, ruling blank sheets, applying gum, etc.

ISCO 08 Unit Group Details:

Code 7323

Title Print Finishing and Binding Workers

7323.9900

Book Binders and Related Workers, Other

Bookbinders and Related Workers, Other include workers who bind covers to books and perform book-finishing operations not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7323

Title Print Finishing and Binding Workers

transmission and supply lines and cables, and electronic and telecommunications equipment and systems.

The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product.

Tasks performed usually include: installing, maintaining, fitting and adjusting electrical and electronic wiring systems, machinery and equipment; examining blueprints, wiring diagrams and specifications to determine sequences and methods of operation; inspecting and testing electrical and electronic systems, equipment, cables and machinery to identify hazards, defects, and the need for adjustment or repair; installing maintaining and repairing electrical and telecommunications transmission lines; joining electrical, telecommunications and data cables; maintaining, troubleshooting, fitting, adjusting, testing and repairing electronic equipment such as commercial and office machines and electronic instruments and control systems, computers, telecommunications and data transmission equipment.

Occupations in this Sub Division are classified into the following Groups:

741	Electrical Equipment Installers and Repairers
742	Electronics and telecommunication Installers and Repairers

Sub Division 74

Electrical and Electronics Trades Workers

Electrical and electronics trades workers install, fit and maintain electrical wiring systems and machinery and other electrical apparatus, electrical

Group 741

Electrical Equipment Installers and Repairers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Electrical equipment installers and repairers install, fit and maintain electrical wiring systems and related equipment, electrical machinery and other electrical apparatus and electrical transmission and supply lines and cables.

Occupations in this Group are classified into the following Families:

7411 Building and Related Electricians
7412 Electrical Mechanics and Fitters
7413 Electrical Line Installers and Repairers
7419 Electrical and Electronic Equipment Mechanics and Fitters and Related Workers, Not Elsewhere Classified

Family 7411 Building and Related Electricians

Building and related electricians install, maintain and repair electrical wiring systems and related equipment and fixtures.

7411.0100 Electrician, General

Electrician, General installs, maintains and repairs electrical machinery equipment and fittings in factories, workshops power house, business and residential premises etc., Studies drawings and other specifications to determine electrical circuit, installation details, etc. Positions and installs electrical motors, transformers, switchgears. Switchboards, Microphones, loud-speakers and other electrical equipment, fittings and lighting fixtures. Makes connections and solders terminals. Tests electrical installations and equipment and locates faults using

megger, test lamps etc. Repairs or replaces defective wiring, burnt out fuses and defective parts and keeps fittings and fixtures in working order. May do armature winding, draw wires and cables and do simple cable jointing. May operate, attend and maintain electrical motors, pumps etc.

ISCO 08 Unit Group Details:

Code 7411

Title Building and Related Electricians

7411.0101 Access Controls Installation Technician

Access Controls Installation Technician, is also called 'Access Control Device Installer'. The Access Control Installation Technician provides after sale support services for access control devices and systems such as point of sale scanners, finger print or iris scan. The individual at work is responsible for installing the access control system at the customer's premises. The individual undertakes site assessment, installs the hardware and integrates the system to meet customer's requirement.

ISCO 08 Unit Group Details:

Code 7411

Title Building and Related Electricians

7411.0102 CCTV Installation Technician

Access Controls Installation Technician: Also called 'Access Control Device Installer', the Access Control Installation Technician provides after sale support services for access control devices and systems such as point of sale scanners, finger print or iris scan. The individual at

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

work is responsible for installing the access control system at the customer's premises. The individual undertakes site assessment, installs the hardware and integrates the system to meet customer's requirement.

Qualification Pack Details:

QP NOS Reference	ELE/Q4605
QP NOS Name	CCTV
Installation Technician	
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7411
Title Building and Related Electricians

7411.0200

Electrician (Mines)

Electrician (Mines) studies the details of the mines and relevant drawing, etc. to determine the electrical circuits, installation details, etc. Installs in mines, lights and switches, motors, transformers, switchgears, switch board fittings and lighting fixtures whether flame proof or not within the mine or relating to the mines. Maintains and repairs the electrical machinery equipment, cap lamps, other fittings in mines, etc. Tests the electrical installations and equipment as prescribed under the mines regulations and Indian Electricity Rules. Locates the faults using megger, test lamp, etc. Repairs defective wiring, burnt out fuses and defective parts and keeps fittings and fixtures in working order. Operates or maintains electrical motors, pumps, etc. including those which are in flame proof fitting, intrinsically safe apparatus, etc. Conversant with general rules of maintenance of the electrical equipment and wiring as per the mines regulations and Indian Electricity Rules. Knows how to test for methane gas and able to switch off electricity from the

concerned part of the mine where percentage of methane gas is more than 1.25%. Observes all safety precautions on the switching side avoiding sparking. Knows conversion of AC and DC; conversant with the electrical hazards within the mines. He is also responsible for thorough examination of all apparatus (including the testing of conductors and metallic coverings for continuity) as often as may be necessary to prevent danger, examination and testing of all apparatus erected or re-erected in the Mine before it is put into service in a new position. He is personally responsible for the maintenance at the mine of a log-book made up of daily log sheets prepared in the prescribed form.

ISCO 08 Unit Group Details:

Code 7411
Title Building and Related Electricians

7411.0301

Wireman, Light and Power

Wireman, Light and Power installs various kinds of electrical wiring such as cleat, conduit, casing, concealed etc. in houses, factories, workshops and other establishments for light and power supply. Studies diagram and plan of wiring and marks light, power and other points accordingly. Fixes wooden pegs, sizes tubes, saws casings, etc. by common carpentry fitting and other processes, according to type of wiring needed. Erects switch boards and fixes switch box casings cleats, conduits ceiling roses, switches, meters etc. according to type and plan of wiring. Draws wire in two way or three-way wiring system as prescribed and makes electrical connections through plugs and switches to different points exercising great care for safety and avoiding short circuit and earthing at any

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

stage of wiring. Fixes fuses and covers as per diagram and insulates all naked wires at diversions and junctions to eliminate chances of short circuit and earthing. Fits light brackets, holders, shades, tube and mercury lights, fans etc. and makes electrical connection as necessary. Tests checks installed wiring for leakage and continuity using megger, removes faults if any and certifies wiring as correct for connecting mains. Checks existing wiring for defects and restores current supply by replacing defective switches, plug sockets, blown fuse etc. or removing short circuits and faulty wiring as necessary. May repair simple electrical domestic appliances.

Qualification Pack Details:

QP NOS Reference	ELE/Q7302
QP NOS Name	Wireman-Control Panel
NSQF Level	3

ISCO 08 Unit Group Details:

Code 7411
Title Building and Related Electricians

7411.0500

Meter Sealer, Electrical

Meter Sealer, Electrical seals electrical meters, main switch boards and consumers cut outs using special sealing plier, wire and lead to prevent tampering and pilferage of current. Visits consumers premises, industrial places etc., connected with electric supply. Checks current supply equipment such as meters, fuse boxes, cut outs etc. for proper fixing. Seals meters main switch cover and cut outs where necessary using wire lead and sealing plier, to ensure that no one can open or tamper with without breaking their respective seals. Makes periodical visits to premises to check whether meter seals and switches are intact and are not

tampered with for illegal use of electric current. Reports to superiors of illegal tapping from supply lines. May attend calls to replace fuses.

ISCO 08 Unit Group Details:

Code 7411
Title Building and Related Electricians

7411.0600

Electrician, Stage and Studio

Electrician, Stage and Studio controls lighting equipment, such as flood lamps, strip lights, and spotlights from projection room and front or backstage areas of theatre to cast spotlight on stage performers. Places spotlights in specified locations in theatre and connects wiring for lighting. Moves spotlight to follow movements of performers with beam of light, according to instructions on prepared cue sheet. Turns colour wheel, causing light to be diffused through varicoloured gelatine disks to change colour of light. Cleans and adjusts light, replacing carbons or bulbs as needed. May insert varicoloured gelatine sheets in frame to assemble colour wheel.

ISCO 08 Unit Group Details:

Code 7411
Title Building and Related Electricians

7411.9900

Building and Related Electricians, Other

Building and Related Electricians, other include all other electricians engaged in installation, maintenance and repairing of electrical wiring systems and related equipment not elsewhere classified.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7411

Title Building and Related Electricians

Family 7412 Electrical Mechanics and Fitters

Electrical mechanics and fitters fit, adjust, install and repair electrical machinery and other electrical apparatus and equipment in buildings, factories, workshops, or other places.

7412.0100

Mechanic, Precision Instrument, Electrical

Mechanic Precision Instrument Electrical; Meter Repairer, Electrical repairs and sets electrical parts of precision instruments such as megger, voltmeter, ammeter, condensers, galvanometers, etc., to high accuracy for recording correct readings by reviving, replacements and necessary adjustments. Studies drawings, circuit diagrams and other specifications and examines instrument visually to locate any apparent loose connection, short circuits etc. Dismantles instrument using insulated screw drivers, pliers, special spanners etc., and checks components, insulation wiring, fittings and other features with precision mechanical and electrical measuring instruments to locate wear and tear, short circuits and other defects. Cleans necessary or any fluid used in instrument and their various parts using special brushes. Checks gear shell, bearing jewels and other operating parts and repairs or replaces worn out and damaged ones. Assembles parts, replaces insulation and makes electrical wiring and connections according to diagram and prescribed specification. Examines assembled or repaired instrument by standard tests,

makes necessary adjustments and ensures correct reading and desired performance within prescribed limits. Seals cut-outs, meters etc. to avoid manipulation. May wind coils, set new resistance and perform other electrical functions, if required.

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

7412.0101

Automation Specialist

Individuals at this job are responsible for providing support to production operations through maintenance of process control systems installed at shop floor for various manufacturing processes.

Qualification Pack Details:

QP NOS Reference ASC/Q6807

QP NOS Name Automation
Specialist

NSQF Level 5

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

7412.0102

In-circuit Testing Machine Operator

In-Circuit Testing (ICT) Machine Operator conducts tests on assembled printed circuit boards (PCB) to identify manufacturing defects. The individual at work is responsible for testing the PCB assembly by using the ICT machine to check for short circuits, open circuits, missing components, incorrect components and incorrect placing of components – that is parts with limited or known variations.

Qualification Pack Details:

QP NOS Reference	ELE/Q6602
QP NOS Name	In-circuit Testing Machine Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7412
Title	Electrical Mechanics and Fitters

7412.0103**Automated Optical Inspection
Operator**

Assembly Operator assembles all parts and modules of a patient monitoring device (PMD) or X-Ray machine to complete the product. The individual at work fits together different electronics and electro-mechanical parts and modules and connects them to manufacture the PMD or X-Ray machine as per product design.

Qualification Pack Details:

QP NOS Reference	ELE/Q6601
QP NOS Name	Automated Optical Inspection Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7412
Title	Electrical Mechanics and Fitters

7412.0104**Bare Board Testing Operator**

Bare Board Testing Operator conducts electrical test on printed circuit board (PCB), post manufacturing. The individual at work operates a scanner to verify each circuit connection of the manufactured PCB in order to check for any 'shorts' or 'open' on the single or multilayer boards

ensuring that the bare board performs as per original circuit design.

Qualification Pack Details:

QP NOS Reference	ELE/Q2401
QP NOS Name	Bare Board Testing Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7412
Title	Electrical Mechanics and Fitters

7412.0200**Electrical Fitter**

Electrical Fitter fits and assembles electrical machinery and equipment such as motors, transformers, generators, switchgears, fans etc., Studies drawings and wiring diagrams of fittings, wiring and assemblies to be made. Collects prefabricated electrical and mechanical components according to drawing and wiring diagrams and checks them with gauges, megger etc. to ensure proper function and accuracy. Fits mechanical components, resistance, insulators, etc., as per specifications, doing supplementary tooling where necessary. Follows wiring diagrams, makes electrical connections and solders points as specified. Checks for continuity, resistance, circuit shorting, leakage, earthing, etc. at each stage of assembly using megger, ammeter, voltmeter and other appliances and ensures stipulated performance of both mechanical and electrical components filled in assembly. Erects various equipment such as bus bars, panel boards, electrical posts, fuse boxes switch gears, meters, relays etc. using non-conductors, insulation hoisting equipment as necessary for receipt and distribution of electrical current to feeder lines. Installs motors, generators, transformer etc. as

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

per drawings using lifting and hoisting equipment as necessary, does prescribed electrical wiring, and connects to supply line. Locates faults in case of breakdown and replaces blown out fuse, burnt coils, switches, conductors etc. as required. Checks, dismantles, repairs and overhauls electrical units periodically or as required according to scheduled procedure. May test coils. May specialize in repairs of particular equipment manufacturing, installation or power house work and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

7412.0201

Fitter-Electrical and Electronic Assembly

Fitter-Electrical and Electronic Assembly assembles the electrical panels, equipment/systems and electronic products, inclusive of components, sub-assemblies, or completed equipment/systems. Along with soldering techniques and anti-static protection techniques assemble with the mechanical equipment.

Qualification Pack Details:

QP NOS Reference CSC/Q0402

QP NOS Name Fitter-Electrical and Electronic Assembly

NSQF Level 3

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

7412.0202

Mechanical Fitter

Mechanical Fitter follows assembly drawings in order to install various devices such as meters, switches, LEDs at defined slots in the panel. The individual at work is responsible for fitting the control devices of the panel at defined slots, once the outer casing of the panel has been assembled.

Qualification Pack Details:

QP NOS Reference ELE/Q6302

QP NOS Name Mechanical Fitter

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

7412.0203

Iron and Steel Fitter: Electrical Assembly

Iron and Steel: Fitter Electrician Assembly identifies the operations required to assemble various components of the machine by studying their engineering drawings, fitting different components of the machine and testing the assembled machine.

Qualification Pack Details:

QP NOS Reference ISC/Q0901

QP NOS Name Iron & Steel: Fitter Electrician Assembly

NSQF Level #N/A

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

7412.0300

Adjuster, Relays

Adjuster, Relays tests and adjusts relays (electrical equipment) used for controlling

flow of electric current. Sets relay on testing table, checks flow of current, insulation and condition of various components and repairs or replaces defective parts. Cleans, aligns and measures gap between contact points and sets clearance to specified standard by tightening or loosening adjustment screws, nuts and bolts, sets tension of relay springs, and connects new or adjusted relay to test board. Switches on, records flow of current by meter reading and adjusts spring tension and gap between relay contacts to flow. Maintains record and cleans relay periodically. May wind primary and secondary coils.

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

7412.0400

Armature Winder

Armature Winder winds and repairs armatures, field coils, etc. of motors and dynamos. Dismantles motor and removes armature to examine and test for continuity. Cleans segments, of commutator with abrasive cloth or sand paper and cleans carbon brushes for even and smooth movement. Examines burnt out armature and checks type of winding to determine gauge (thickness) and number of turns of wire required. Cuts out all wiring from slots and cleans slots with blunt knife and sand paper. Mounts cleaned core horizontally on frame for easy rotation by hand and covers bottom of each slot with insulating paper. Selects correct gauge of wire for winding and fastens one end of it to core of armature. Determines type of winding to be done either by calculation or from examined sample and winds each set of slot with wire by rotating armature on frame to

pass wire from slot to slot to form coil. Stops winding after required number of turns and length of wire have been wound to form coil. Covers all exposed wire with insulating tape and solders free ends of wire according to calculation and type of winding with respective segments of commutator using hand soldering iron. Pushes prepared wire coils in position in insulated slots in heavy duty or high power armatures and assists Fitter, Electrical in soldering terminals to respective commutator segments in proper positions. Tests rewound armatures for efficiency and continuity, before further processing by Operator, Impregnation Plant. Replaces armature and coil in shell and assembles motor. Tests performance of motor under normal working conditions and makes necessary replacements of parts like carbon brushes, insulating, etc. May wind coils on machines. May impregnate armature and coils with varnish in impregnation plant to insulate them.

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

7412.0500

Coil Winder, Machine

Coil Winder, Machine; Coil Winding Machine Operator operates coil winding machine to make coils of required shape and size used in electric motors, dynamos, transformer, radios and other electrical equipment. Fits metals or wooden core of required shape and size on revolving mechanism of machine. Places roll of wire of required gauge at correct height on machine stand. Draws free end of wire over core through guides in machine and sticks it at its edge. Adjusts meter fitted to machine to record specified number of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

turns of core. Starts machine and watches meter to wind required number of turns of wire over core. Cuts wire, bends its free end slightly to keep coil in position and removes coil from machine. Wraps insulation cloth and tape over coil. Maintains account of output and wire used. May wind coils manually and test for continuity. May clean and oil coil winding machine.

ISCO 08 Unit Group Details:

Code 7412
Title Electrical Mechanics and Fitters

7412.0600 **Electrician, Aircraft**

Electrician, Aircraft installs and services electrical wiring and equipment in aircraft. Tests electrical installation and equipment, supply of current, and continuity of electrical circuit in aircraft, using megger, voltmeter, avometer etc. and locates faults. Repairs or replaces defective wiring, connector plunge, blown fuses, defective parts and electrical fittings and fixtures and maintains them in working order. Adjusts voltage regulators, actuators etc. as scheduled. Ensures that all connections to various lighting system such as landing light, anti-collision lights, winkle tip lights etc. are intact covered and insulated. Ensures that storage battery in aircraft is kept fully charged and that acid level is above batter plates. Checks voltage, polarity, phase rotation etc. and supplies electric power from ground power trolley (ground generator) to start aircraft engine before taking off. Tests defective motors, generators etc. using testing equipment and gets burnt coils or armature re-wound by Armature Winder. May do armature winding. May repair batteries.

ISCO 08 Unit Group Details:

Code 7412
Title Electrical Mechanics and Fitters

7412.0701 **Electrician, Automobile**

Electrician, Automobile installs, repairs replaces and overhauls wiring, starters, generators, distributors and other electrical equipment of motor vehicles. Examines vehicle battery, checks voltage and specific gravity using special equipment such as voltmeter hydrometer, heavy discharge tester, etc. and ensures that battery is in good condition. Checks vehicle wiring, locates faults and rectifies defects by replacing damaged wire or connecting ends with insulation tape. Starts engine to check whether alternator is charging correctly, and if distributor, condenser coil and cut out are functioning properly. Estimates nature of defects and reports components to be replaced or repaired. Dismantles and repairs electrical units and components such as generator, distributor etc. where required. Replaces repaired kit or unit in vehicle and connects it with battery. Conducts thorough examination of various electrical fittings such as lights, panel indicators, fuel pumps, etc. and rectifies defects. Checks condition and makes necessary adjustments. May do armature winding. May drive vehicles on road. May charge batteries.

Qualification Pack Details:

QP NOS Reference ASC/Q1408
QP NOS Name Automotive
Electrician
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7412
Title Electrical Mechanics and Fitters

7412.0801

Maintenance Assistant/Helper

Maintenance Assistant/Helper is responsible for providing assistance to the maintenance personnel in repairing of the breakdown equipment by fetching the tools, spares and providing material handling support.

Qualification Pack Details:

QP NOS Reference	ASC/Q6806
QP NOS Name	Maintenance Assistant/Helper
NSQF Level	2

ISCO 08 Unit Group Details:

Code	7412
Title	Electrical Mechanics and Fitters

7412.0901

Potting and Curing Operator

The Potting and Curing Operator fills the auto electronic assembly with epoxy compound for resistance from vibration and protection from environment. The individual at work is responsible for preparing potting compound, filling the auto electronic assembly with potting and curing them in oven for setting.

Qualification Pack Details:

QP NOS Reference	ELE/Q6603
QP NOS Name	Potting and Curing Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7412
Title	Electrical Mechanics and Fitters

7412.1001

Mechanical Fitter-Control Panel

Mechanical fitter – Control Panel: The Mechanical Fitter follows assembly drawings in order to install various devices such as meters, switches, LEDs at defined slots in the panel. The individual at work is responsible for fitting the control devices of the panel at defined slots, once the outer casing of the panel has been assembled.

Qualification Pack Details:

QP NOS Reference	ELE/Q7303
QP NOS Name	Mechanical Fitter- Control Panel
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7412
Title	Electrical Mechanics and Fitters

7412.1002

Site Engineer-Control Panel

The Site Engineer provides after sales support and is responsible for installing and commissioning the control panel at customer's site. The individual at work is responsible for installing the control panel at customer site and ensure its operation on being powered up.

Qualification Pack Details:

QP NOS Reference	ELE/Q7501
QP NOS Name	Site Engineer- Control Panel
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7412
Title	Electrical Mechanics and Fitters

7412.9900

Electrical Mechanics and Fitters, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Electrical Mechanics and Fitters, other include all other workers engaged in fitting, assembling, repairing and maintaining electrical equipment, machinery, appliances, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7412

Title Electrical Mechanics and Fitters

Family 7413

Electrical Line Installers and Repairers

Electrical Line Installers and Repairers install, repair and join electrical transmission and supply cables and related equipment.

7413.0100

Lineman, Light and Power

Lineman, Light and Power erects and maintains overhead electric power lines to conduct electricity from power plant to place of use. Erects poles and small towers at specified distances with assistance of other workers. Climbs poles and towers and fixes insulators, lightning arresters, cross-brass etc. and other auxiliary equipment at proper heights. Strings and draws cables (wires) through insulators fixed on cross bars, exercising great care to leave proper sag in wires to avoid breakage under changing atmospheric conditions. Joins cable by various methods, fixes joint-boxes at specified places, replaces fuses and faulty components as necessary and tests for electrical continuity. Checks overhead lines in allotted section as necessary and maintains them in order for carrying electricity by effecting repairs of defective

lines, poles, towers and auxiliary equipment as directed. May install and repair overhead power lines for electric trains, trams or trolley buses. May work on high tension or low tension power lines.

ISCO 08 Unit Group Details:

Code 7413

Title Electrical Line Installers and Repairers

7413.9900

Electrical Line Installers, Repairers and Cable Jointers, Other

Electrical Line Installers, Repairers and Cable Jointers perform number of routine and low skilled tasks in erecting and maintaining overhead lines, joining cables, etc., and are designated as Lineman's Mate; Cable Jointer Helper; etc., according to work performed.

ISCO 08 Unit Group Details:

Code 7413

Title Electrical Line Installers and Repairers

Family 7419

Electrical and Electronic Equipment Mechanics and Fitters and Related Workers, Not Elsewhere Classified

This Family covers workers not elsewhere classified in the Group 724, Electrical and electronic equipment mechanics and fitters. For instance, occupations involving inspection of television receivers during final assembly, checking of telephone and telegraph equipment, doing armature and coil winding, repairing and charging battery, replacing blown out fuses etc.

7419.0100

Senior Functioned (Telephone Equipment Manufacturing)

Senior Functioner (Telephone Equipment Manufacturing) checks, locates faults and sets various kinds of complex telephone equipment. Studies blue prints and wiring diagrams of equipment to be checked and examines connections, circuits and links of group selector, final selector and un-selector racks. Connects equipment to testing instrument and tests it to detect faults, if any. Records defects and faults to be rectified, gets them removed and retest it after rectification to ensure conformity with prescribed specifications and operational efficiency. May design test sets to examine complex circuits and equipment.

ISCO 08 Unit Group Details:

Code 0

Title Electrical Mechanics and Fitters;
Electronics Mechanics and
Servicers

7419.0200

Junior Functioner (Telephone Equipment Manufacturing)

Junior Functioner (Telephone Equipment Manufacturing) performs operational tests of repetitive nature on assembled telephonic apparatus, gets defects removed and ensures operational efficiency. Mounts apparatus such as automatic switching apparatus, step by step telephone switches, relay sets, group selector, final selector, un selector, racks, etc. on standard test unit. Operates testing apparatus and observes readings. Notes faults and deflections detected by readings observed for repairs particularly

with reference to circuit diagrams and functioning instruction sheet of each apparatus. Tests apparatus again after rectification of faults, and certifies tests checked apparatus for operational efficiency. May conduct minor repairs of standard test unit.

ISCO 08 Unit Group Details:

Code 0

Title Electrical Mechanics and Fitters;
Electronics Mechanics and
Servicers

7419.0300

Wiring Inspector and Bank Tester (Telephone Equipment Manufacturing)

Wiring Inspector and Bank Tester (Telephone Equipment Manufacturing) tests operational efficiency of switch wiring, bank multiple wiring, rack wiring and cables, and gets defects removed. Checks wiring for colours and gauges to ensure conformity with prescribed specifications. Tests wiring for continuity and leakage using buzzar and megger (testing instruments). Records defects in charts for rectification. Tests and approves wiring for conformity with prescribed specifications after removal of wiring defects and other faults.

ISCO 08 Unit Group Details:

Code 0

Title Electrical Mechanics and Fitters;
Electronics Mechanics and
Servicers

7419.0400

Inspector, Assembly (Telephone Equipment Manufacturing)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Inspector, Assembly (Telephone Equipment Manufacturing) inspects assemblies and sub-assemblies of switches, phones and other telephone and telegraph equipment and gets defects removed. Checks wiring and different components of apparatus for conformity with specifications, using simple tests, sets and gauges. Checks assembly with charts, blue prints and other prescribed standardized procedures and records defects and faults of assembly on quality control charts. Tests apparatus after rectification and certifies assembly to be in conformity with requirements.

ISCO 08 Unit Group Details:

Code 0
Title Electrical Mechanics and Fitters; Electronics Mechanics and Servicers

7419.0500 Battery Servicing Man

Battery Servicing Man; Battery Charger charges storage batteries used in motor vehicles, aircraft and other electrical equipment. Places batteries on table, unscrews caps of cell and checks specific gravity of electrolyte (acid solution) in cell with hydrometer. Pours required amount of distilled water or dilute acid into cell as necessary to submerge cell plates with electrolyte solution and adjust its strength. Connects battery with charging set as prescribed and switches on flow of current. Observes flow of electricity and rate of charging from ammeter readings, regulates it as necessary by control switch and keeps battery on charge for specified period. Switches off charging set and checks specific gravity of electrolyte and voltage acquired by battery, using hydrometer and voltmeter respectively. Fixes cell caps of battery securely to avoid

splashing of electrolyte solution. May repair batteries and maintain account of batteries charged. May charge number of batteries simultaneously by connecting their terminals in series to battery charger.

ISCO 08 Unit Group Details:

Code 7412
Title Electrical Mechanics and Fitters

7419.0600 Operator, Impregnation Plant (Telephone Equipment Manufacturing)

Operator, Impregnation Plant (Electrical Equipment Manufacturing) operates impregnation plant to dip assembled coils and armatures in tank containing molten insulating material like wax or varnish and dries dipped articles in baking plant (electric drying chamber). Feeds solid wax or varnish into heating tank of plant. Switches on electric heaters and observes thermometer readings to heat and melt insulating materials completely. Dips coils or other materials to be insulated into tank either manually or with hoisting equipment and keeps them in solution for prescribed period. Shuts lid of tank and operates vacuum pump of machine to ensure that all parts of dipped articles are completely covered with insulating materials. Removes dipped articles and hangs them to drip of excess insulation. Places articles in electrical baking plant and dries them at fixed temperature for set period of time. Cleans plant and maintains account of articles handled.

ISCO 08 Unit Group Details:

Code 0

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Electrical Mechanics and Fitters;
Electronics Mechanics and
Servicers

7419.9900

Electrical and Electronic Equipment Mechanics and Fitters and Related Workers, Other

Electrical and Electronic Equipment Mechanics and Fitters and Related Workers, Other include all other workers engaged in fitting, assembling, repairing and maintaining electronic and electrical equipment, machinery, appliances, etc., not elsewhere classified

ISCO 08 Unit Group Details:

Code 0

Title Electrical Mechanics and Fitters;
Electronics Mechanics and
Servicers

Group 742

Electronics and Telecommunication Installers and Repairers

Electronics and telecommunications installers and repairers fit, maintain, adjust and repair electronic equipment such as commercial and office machines and electronic instruments and control systems and install, repair and maintain telecommunications equipment, data transmission equipment, cables, antennae and repair, fit and maintain computers.

Occupations in this Group are classified into the following Families:

7421 Electronic Mechanics and Servicers
7422 Information and Communications Technology Installers and Servicers

Family 7421

Electronic Mechanics and Servicers

Electronics mechanics and servicers fit, maintain, adjust and repair electronic equipment such as commercial and office machines and electronic instruments and control systems.

7421.0100

Electronics Fitter, General

Electronics Fitter, General fits, assembles and repairs various kinds of electronic equipment in factory or workshop or at place of use. Examines drawings and wiring diagrams; checks parts for accuracy of fit and minor adjustments; assembles parts or mounts them on chassis or panels with aid of hand tools; installs and connects wiring, soldering joints equipment, diagnoses faults with aid of electronic testing equipment; dismantles equipment if required and replaces faulty parts or wiring.

ISCO 08 Unit Group Details:

Code 7421

Title Electronic Mechanics and Servicers

7421.0101

Iron and Steel Fitter: Electronic Assembly

Iron and Steel Fitter Electronic Assembler assembles and wires up electronic equipment and systems to mechanical equipment. It involves the assembly of electronic products, inclusive of components, subassemblies or completed equipment and systems. Along with soldering and anti-static protection

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

technique assembly with mechanical components.

Qualification Pack Details:

QP NOS Reference	ISC/Q0902
QP NOS Name	Iron & Steel_Fitter_Electro nic Assemble
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.0200

Electronics Fitters, Other

Electronics Fitter, other include all other workers engaged in fitting, assembling, repairing and maintaining electronic equipment, machinery, appliances, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.0300

Electronic Mechanic

Electronics Mechanic; Electronic Equipment Mechanic repairs electronic equipment, such as computers, industrial controls, radar systems, transmitters, and telemetering control systems following blueprints and manufacturer's specifications and using hand tools and test instruments. Tests faulty equipment and applies knowledge of functional operation of electronic units and systems to diagnose cause of malfunction. Tests electronic components and circuits to locate defects, using instruments, such as oscilloscopes, signal generators,

ammeters and voltmeters. Replaces defective components and wiring and adjusts mechanical parts, using hand tools and soldering iron. Aligns, adjusts and calibrates testing instruments. Maintains records of repairs, calibrations and test. May install equipment in industrial or military establishments and in aircraft.

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.0401

Field Technician, Air Conditioner

Field Technician, Air Conditioner is also, called AC repair Technician, this is an after sales service job for installing and providing support to the air conditioner buyers. The individual at work installs the air conditioner and interacts with customers to diagnose the problem and assess possible causes. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for failed parts or recommends factory repairs for bigger faults.

Qualification Pack Details:

QP NOS Reference	ELE/Q3102
QP NOS Name	Field Technician: Air Conditioner
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.0501

Field Technician, Refrigerator

Field Technician, Refrigerator is also, called 'Fridge Technician', the Refrigerator

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Field Technician provides installation and after sales service to the refrigerator buyers. The individual at work interacts with customers to install the refrigerator and diagnose the problem to assess possible causes of malfunction. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for failed parts or recommends factory repairs for bigger faults.

Qualification Pack Details:

QP NOS Reference	ELE/Q3101
QP NOS Name	Field Technician: Refrigerator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7421
Title Electronic Mechanics and Servicers

7421.0601

Field Technician, Washing Machine

Field Technician, Washing Machine is also, called 'Washing machine Repair Technician', this job is about providing after sales service to customers. The individual at work installs the washing machine, interacts with customers to diagnose the problem and assesses possible causes of fault reported. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for failed parts or recommends factory repairs for bigger faults.

Qualification Pack Details:

QP NOS Reference	ELE/Q3103
QP NOS Name	Field Technician: Washing Machine
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7421
Title Electronic Mechanics and Servicers

7421.0701

Field Technician, Other Home Appliances

Field Technician, Other Home Appliances is also called, 'Home Appliance Repair Technician', this is an after sales service job for installing and providing support to the water purifier, mixer/grinder buyers. The individual at work installs the appliance and interacts with customers to diagnose the problem and possible causes. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for failed parts or recommends factory repairs for bigger faults.

Qualification Pack Details:

QP NOS Reference	ELE/Q3104
QP NOS Name	Field Technician, Other Home Appliances
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7421
Title Electronic Mechanics and Servicers

7421.0801

Field Technician: UPS and Inverter

Field Technician: UPS and Inverter is also called, 'UPS repair Technician', this is an after sales service job for installing and providing support to customers of different types of UPS and inverters. The individual at work installs the newly purchased UPS or inverter. The individual also interacts with customers to diagnose problems in them, assesses

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

possible causes, rectifies faults or replaces faulty modules or recommends factory repairs for bigger faults.

Qualification Pack Details:

QP NOS Reference	ELE/Q7201
QP NOS Name	Field Technician: UPS and Inverter
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.0901

Field Technician: Digital Camera

Field Technician: Digital Camera is also called, 'Camera Repair Technician', the Digital Camera Field Technician provides after sales service to camera buyers. The individual at work interacts with customers to diagnose the problem to assess possible causes of malfunction. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for failed parts.

Qualification Pack Details:

QP NOS Reference	ELE/Q3107
QP NOS Name	Field Technician, Digital Camera
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.1001

Field Engineer-RACW

Field Engineer-RACW is also, called 'Service Engineer', the Field Engineer provides installation and after sales

service on multiple appliances such as refrigerator, air conditioner and washing machine. The individual at work interacts with customers to install the appliance and diagnose the problem to assess possible causes of malfunction. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for failed parts or recommends factory repairs for bigger faults.

Qualification Pack Details:

QP NOS Reference	ELE/Q3105
QP NOS Name	Field Engineer- RAWC
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.1101

Repair Assistant: Switches

Repair Assistant is responsible for diagnosing the faulty sub system and addressing first-level complaints and servicing of industrial-communications switches. The individual at work diagnoses and carries out repairs communication switches by dismantling, removing and replacing faulty systems or sub systems or assembly.

Qualification Pack Details:

QP NOS Reference	ELE/Q8103
QP NOS Name	Repair Assistant: Switches
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7421.1201

Auto-Tester Capacitor

Auto-Tester programs the auto testing machine for segregating defective capacitors from passed ones. The individual at work is responsible for testing the capacitor using automated testing machine for electrical, tan-delta and capacitance as per machine specifications.

Qualification Pack Details:

QP NOS Reference	ELE/Q0103
QP NOS Name	Auto-tester
	Capacitor

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7421
Title Electronic Mechanics and Servicers

7421.1202

Testing Technician

Testing Technician sorts, inspects and tests the resistors and capacitors to check value and conformance with specified standards. The individual at work is responsible for testing the resistor or capacitor using test and measuring equipment, jigs and visual aids in order to ensure that they are of correct value, and are painted and marked as per company's specifications.

Qualification Pack Details:

QP NOS Reference	ELE/Q0111
QP NOS Name	Testing Technician- Passive components
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7421
Title Electronic Mechanics and Servicers

7421.1301

TV Repair Technician

TV Repair Technician is also, called 'Field Technician-TV', the TV Repair Technician provides after sales service to customers. The individual at work interacts with customers to install the TV as well as diagnose the problem and assess possible causes of fault reported. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for failed parts or recommends factory repairs for bigger faults.

Qualification Pack Details:

QP NOS Reference	ELE/Q3105
QP NOS Name	TV Repair
	Technician

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7421
Title Electronic Mechanics and Servicers

7421.1302

Field Engineer TV

Field Engineer TV is also called, 'Service Engineer – TV', the TV Field Engineer provides installation and after sales service to buyers of TV and other consumer electronic products such as home theatre system, DVD and Blu-ray players, audio systems, headphones etc. The individual at work interacts with customers to install the entertainment system and diagnose any problems to assess possible causes of malfunction. Once the problem and causes have been identified, the individual rectifies minor problems or replaces faulty modules for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

failed parts or recommends factory repairs for bigger faults.

Qualification Pack Details:

QP NOS Reference	ELE/Q3108
QP NOS Name	Field Engineer TV
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.1401

Solar Panel Installation Technician

Solar Panel Installation Technician is also known as 'Panel Installer', the Solar Panel Installation Technician is responsible for installing solar panels at the customers' premises. The individual at work checks the installation site, understands the layout requirement as per design, assesses precautionary measures to be taken, installs the solar panel as per customer's requirement and ensures effective functioning of the system post installation.

Qualification Pack Details:

QP NOS Reference	ELE/Q5901
QP NOS Name	Solar Panel Installation Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.1402

Solar Photo Voltaic System Installation Technician

Solar PV System Installation Engineer is responsible for designing and installing

the solar photovoltaic system at the customer's premises to meeting their power requirement. The individual at work evaluates the installation site, designs the installation, plans and arranges for materials, and ensures smooth installation process. The individual also supervises the installation technicians' work.

Qualification Pack Details:

QP NOS Reference	ELE/Q5902
QP NOS Name	Solar PV System Installation Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.1403

PV System Installation Engineer

Solar PV System Maintenance Technician is responsible for maintenance and effective functioning of the installed solar panels.

The individual at work cleans the installed solar modules, checks the photovoltaic system for uninterrupted power output and identifies faults in the PV system.

Qualification Pack Details:

QP NOS Reference	ELE/Q6001
QP NOS Name	PV System Installation Engineer
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7421.9900

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Electronic Mechanics and Services, Other

Electronic Mechanics and Servicers, other include all other workers engaged in installing, servicing and repairing radios and television sets and other audio equipment, not elsewhere classified.

electrical adjustments of each component. Solders terminals of wires. Test checks operational efficiency and makes necessary adjustments. Installs batteries and battery charging equipment and fits and maintains protective devices. May install telephone sets at subscriber's premises.

ISCO 08 Unit Group Details:

Code 7421

Title Electronic Mechanics and Servicers

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

Family 7422

Information and Communications Technology Installers and Servicers

Information and communications technology (ICT) installers and servicers install, repair and maintain telecommunications equipment, data transmission equipment, cables, antennae and conduits and repair, fit and maintain computers.

7422.0200

Maintenance Mechanic

Maintenance Mechanic (Telephone) tests, analyses defects, and maintains telephone equipment using test meters and hand tools. Tests wiring and operation of electrical and mechanical components of telephone apparatus, checks operational efficiency and locates faults using voltmeter, resistance meter, watt meter, capacity meter and other instruments as necessary. Replaces defective components, if required, and installs, repairs and adjusts equipment such as switches, relays amplifiers etc. using hand tools. Removes connections or wire distributing frames and solders wires to terminal lugs according to diagram. Conducts test checks periodically to maintain apparatus in operational efficiency. May maintain telephone-switching equipment at private establishments. May maintain and repair power apparatus and storage batteries.

7422.0100

Installation Mechanic

Installation Mechanic (Telephone) installs telephone equipment in telephone exchange. Studies designs, blue prints, circuit diagrams and other specifications for installation of equipment to be done. Sets and installs switch board selector racks, relay set racks, automatic telephone system, key board, morse sets and tele printer as per plan and makes necessary electrical connections according to circuit diagram. Tests installation as prescribed to check mechanical and

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7422.0201

Fault Management Engineer

Fault Management Engineer is responsible for monitoring network from NOC location and maintaining network uptime by ensuring that faults are effectively resolved within shortest period of time. He is also responsible for directing and co-ordinating with the field team to carry out corrective/change activities on site in case field support is required.

Qualification Pack Details:

QP NOS Reference	TEL/Q6500
QP NOS Name	Fault Management Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7422
Title	Information and Communications Technology Installers and Servicers

7422.0202

Grass Root Telecom Provider (GRTP)

Grass Root Telecom Provider (GRTP) is responsible to keep ONT site operational on 24x7 basis; maintain and repair basic faults/issues at ONT site; promote local devices and provide services.

Qualification Pack Details:

QP NOS Reference	TEL/Q6202
QP NOS Name	Grass Root Telecom Provider (GRTP)
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7422
Title	Information and Communications Technology Installers and Servicers

7422.0203

Handset Repair Engineer (Level II)

Handset Repair Engineer is responsible for performing handset repair including hardware and software components and testing the handset for adequacy post repair.

Qualification Pack Details:

QP NOS Reference	TEL/Q2201
QP NOS Name	Handset Repair Engineer (Level II)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7422
Title	Information and Communications Technology Installers and Servicers

7422.0204

Infrastructure Engineer

Infrastructure Engineer is responsible for ensuring site uptime through preventive and corrective maintenance of passive infrastructure at sites. He also coordinates infrastructure upgradation activities and ensures timely payments of rent, diesel and electricity charges after validating the vendor bills.

Qualification Pack Details:

QP NOS Reference	TEL/Q6100
QP NOS Name	Infrastructure Engineer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7422
Title	Information and Communications Technology Installers and Servicers

7422.0400

Lineman, Telephone

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Lineman, Telephone and Telegraph installs, repairs and maintains telephone and telegraph lines, telephone instruments, key boards etc. in his allotted section. Erects poles manually for telephone and telegraph lines, ensuring proper spacing, alignment, stability etc., Climbs erected poles to fix insulators, lightning arrestors, etc. at proper levels and positions. Draws and signs wires on poles as directed by Sub-Inspector Telephone and Telegraph allowing required length for expansion and contraction of wires. Installs telephone equipment and key boards at subscriber's premises, checks them periodically and on breakdowns, locates faults and removes defects by repairs or replacement of faulty components and wiring. Maintains lines within allotted section free of faults. May repair and lay underground cables.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.0600

Fault Controller, Telephones

Fault Controller, Telephones; examines reports on defects of telephone lines, and arranges for their rectification. Examines reports regarding defects in telephones, telephone lines, etc. traces faults in internal system or advises Line Inspector Telephone for getting faulty lines or equipment examined and repaired by maintenance staff. Advises subscribers or customers about removal of defects and rectification of faults. Maintains record of repairs done or defects in important cases personally.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.0700

Carrier Attendant (Telephone)

Carrier Attendant (Telephone) operates and maintains carrier equipment for connecting and arranging alternative lines with outside stations. Attends to and maintains telephone career equipment which enables multiple transmission to be made on single line. Tests trunk telephone lines.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.0800

Cable Jointer

Cable Jointer joins multi-conductor telegraph or telephone cable consisting of number of various coloured wires on the surface or underground. Selects strands of wires to be joined from cable ends according to colour code and removes insulation from end of wires in cables, slips separate pieces of copper or lead sleeves with linear slits over ends of cables and brings ends of naked wires of cables in overlapping contacts according to colour code. Twists overlapping ends of naked wires to join strands and solders or brazes each strand of wire of one cable with corresponding one of other. Dries joint and wraps it with insulating material. Adjusts sleeves over joint keeping slits face to face and heats and solders sleeves together to strengthen and protect joint made. Screws soldered cable in position in cable junction box by tightening bolts and fuses upper portion of box with pitch or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

other compound to completely insulate cable against leakage and moisture. Tests pairs of wires for electrical continuity and insulation, using testing equipment. May be designated as CABLE JOINTER, TELEPHONE AND TELEGRAPH OR CABLE JOINTER LIGHT and POWER according to type of cables joined.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.0801

Optical Fibre Technician

Optical fibre technician is responsible for maintaining uptime and quality of the network segment (both optical media and equipment) assigned to him by undertaking periodic preventive maintenance activities and ensuring effective fault management in case of fault occurrence. He is also required to co-ordinate activities for installation and commissioning of Optical Fibre Cable (OF) as per the route plan.

Qualification Pack Details:

QP NOS Reference TEL/Q6401

QP NOS Name Optical Fibre
Technician

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications
Technology Installers and Servicers

7422.0802

Optical Fibre Splicer

Optical fibre splicer is responsible for ensuring efficient splicing of the optical

fibre cables and supports in optical fibre installation and in carrying out fibre testing using OTDR and power meter.

Qualification Pack Details:

QP NOS Reference TEL/Q6400

QP NOS Name Optical Fibre Splicer
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications
Technology Installers and Servicers

7422.0900

Radar Mechanic

Radar Mechanic; Radar Craftsman installs, services and overhauls radar units. Studies diagrams and manufacturer's specification and installs radar transmitting and receiving equipment. Tests equipment for continuity, frequency, performance, etc., detects faults by application of knowledge of functional operation of electronic units and systems and removes defects by replacing defective parts, soldering or tightening loose and broken connections, using oscilloscopes, signal generators, wave meters, pulse modulators, echolox, avometer, megger and other instruments and hand tools. Aligns, adjusts and calibrates equipment according to specifications. Operates and flight checks radar equipment on aircraft and makes necessary repairs and adjustments to ensure desired efficiency. May operate and repair other electronic and missile control systems.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications
Technology Installers and Servicers

7422.1000

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

X-Ray Mechanic

X-Ray Mechanic installs, repairs and services high frequency X-ray, ultra-violet-ray and other radio therapy equipment in hospitals and clinics. Studies circuit diagrams and manufacturer's instructions for installation. Assembles x-ray and other physiotherapy units such as diathermy, ultra-violet-ray, infra-red units etc. and installs them in hospitals and clinics. Gives necessary power connections to x-ray and other units. Sets up and tests auxiliary units such as potter bucky table, tube columns, serial changers etc., rectifies defects if any and ensures that they are working smoothly and efficiently. Tests x-ray machines and accessory equipment, locates operating difficulties and removes them by replacing fused tubes, meters, indicators, powder cables, etc. as necessary. Repairs mechanical equipment such as bucky table, hand time switch, locking devices etc. as required. Services units periodically by filling transformer with oil, cleaning and oiling mechanical parts of x-ray units, refilling tube heads, etc. Maintain records of types and serial numbers of units handled, prepares job sheets and obtains job completion certificates. May follow circuit diagram and trace electrical faults. May do simple drilling and tapping using hand or power drilling machines.

ISCO 08 Unit Group Details:

Code 7422
Title Information and Communications Technology Installers and Servicers

7422.1001

Installation and Service Engineer

Installation and Service Engineer is also called Field Support Engineer, the Installation and Service Engineer provides

after sale support services to customers at their premises. The individual at work is responsible for installing medical devices, attending to problems making them functional.

Qualification Pack Details:

QP NOS Reference	ELE/Q8001
QP NOS Name	Installation and Service Engineer
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7422
Title Information and Communications Technology Installers and Servicers

7422.1100

Television Installation Man

Television Installation Man installs and adjusts television receivers and antennas, using hand tools. Selects antenna according to type of set and location of transmitting station. Bolts cross arms and dipole elements in position to assemble antenna. Secures antenna in place with bracket and guy wires, observing insurance codes and local ordinances to protect installation from lighting and other hazards. Drills and waterproofs holes in building to make passage for transmission line. Connects line between receiver and antenna and fastens it in place. Tunes receiver on all channels and adjusts screws to obtain desired density, linearity, focus and size of picture. Orients antenna and installs reflector to obtain strongest possible reception. May operate radio broadcasting unit.

ISCO 08 Unit Group Details:

Code 7422
Title Information and Communications Technology Installers and Servicers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7422.1200

Cable Television Installer

Cable Television Installer installs cable television cables and equipment on customer's premises, using electrician's tools and test equipment: Measures television signal strength at utility pole, using electronic test equipment. Computes impedance of wire from pole to house to determine additional resistance needed for reducing signal to desired level. Installs terminal boxes and strings lead-in wires, using electrician's tools. Connects television set to cable system and evaluates incoming signal. Adjusts and repairs cable system to ensure optimum reception. May collect installation fees and explain cable service operation to subscriber. May communicate with SUPERVISOR, using two-way radio or telephone, to receive instructions or technical advice and to report problems to be repaired. May report unauthorized use of cable system to SUPERVISOR. May clean and maintain tools, test equipment.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.1201

Set Top Box Installer/Service Technician

Set Top Box Technicians are required for installing/servicing of set top boxes for either DTH (Direct to Home) or DAS (Digital Addressable System) through Cable service providers. With the digitalization of this industry made mandatory, their role and requirement has become imperative for the industry.

Set Top Box Technician is responsible for installing the set top box at client's site and also addresses the first level complaints and servicing, he also co-ordinates with the technical team for activation of new connections.

Qualification Pack Details:

QP NOS Reference	ELE/Q8101
QP NOS Name	Set Top Box
	Installer/Service
	Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7421

Title Electronic Mechanics and Servicers

7422.1202

DTH Set-top Box Installer and Service Technician

DTH Set-Top Box Installer and Service technician installs set-top boxes and provides after sales service for Direct to Home (DTH) system. The individual at work installs the set-top box at customers' premises; addresses the field serviceable complaints and co-ordinates with the technical team for activation of new connections.

Qualification Pack Details:

QP NOS Reference	ELE/Q8101
QP NOS Name	DTH Set-top Box
	Installer and Service
	Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code 7421

Title Electronic Mechanics and Servicers

7422.1203

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

DAS Set-top Box Installer and Service Technician

DAS Set-Top Box Installer and Service technician installs set-top boxes and provides after sales service for Digital Addressable System (DAS) type. The individual at work installs the set-top box at customers' premises; addresses the field serviceable complaints and co-ordinates with the technical team for activation of new connections.

Qualification Pack Details:

QP NOS Reference	ELE/Q8102
QP NOS Name	DAS Set-top Box Installer and Service Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7422.1300 Television Service and Repairman

Television Service and Repairman repairs and adjusts radios and television receivers, using hand tools and electronic testing instruments. Tunes receiver on all channels and observes audio and video characteristics to locate source of trouble. Adjusts controls to obtain desired density, linearity, focus and size of picture. Examines chassis for defects. Tests voltages and resistance of circuits to isolate defect following schematic diagram and using voltmeter, oscilloscope, signal generator and other electronic testing instruments. Tests and changes tubes, solders loose connections and repairs or replaces defective parts, using hand tools and soldering iron.

Repair radios and other audio equipment. May install television sets.

ISCO 08 Unit Group Details:

Code	7422
Title	Information and Communications Technology Installers and Servicers

7422.1302 Television Repair Technician

Television Repair Technician job role is applicable to both Television manufacturing facilities as well as electronics service centres. This role pertains to rectify faults identified during testing of TV on in manufacturing process and providing after sales assistance and ensuring appropriate functioning of television sets. A TV repair technician identifies the section in the TV that is not functioning. If the problem identified is in the Printed Circuit Board (PCB), the technician identifies the specific fault in the PCB and corrects it. Replaces the dysfunctional PCB with a new one, if the damage identified requires fixing at the service centre.

Qualification Pack Details:

QP NOS Reference	ELE/Q3101
QP NOS Name	Television Repair Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7421
Title	Electronic Mechanics and Servicers

7422.1400 Radio Technician (Radio Manufacturing)

Radio Technician (Radio Manufacturing) tests assembled radio sets with testing

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

equipment to ensure that assembly soldering, frequency, performance, etc. are in accordance with prescribed standards. Places assembled radio set in position and visually examines it to ensure that position of components, connections, soldering, wiring, etc. are in order. Switches on and operates different knobs to check calibration, audibility and general performance of set by varying its tone and listening to various stations and frequencies. Tightens loose nuts and screws, locates faults, replaces defective components and conducts necessary changes. Approves correctly assembled sets for further processing and rejects defective ones for rectification. May tests sets at different stages of assembly. May service, repair and overhaul radio sets.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.1500

Radio Mechanic

Radio Mechanic; Radio Repairer tests, repairs, services and maintains radio receiving sets in accordance with diagrams and manufacturers specifications, using hand tools and electrical measuring instrument. Removes radio cabinet from chassis and examines equipment for damaged components and loose or broken connections and wires either by connecting set with current supply or otherwise. Replaces defective components and parts according to specifications such as tubes (valve), condensers, transformer resistors etc. using hand tools. Makes necessary electrical connections according to diagrams and solders or tightens loose ones. Tests equipment for output

frequency, noise level, audio quality, dial calibration and other factors using oscilloscopes radio frequency and watt meters, ammeters, volt-meters, valve testers etc. Tunes and aligns radio frequency and watt meters, ammeters, in battery sets and gets them charged or replaces them if necessary. May repair transistors and television sets. May repair and service electronic equipment such as microphones, record player, tape recorders, etc.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.1600

Radio Craftsman, Installation

Radio Craftsman, Installation; Radio Mechanic Installation (Aircraft) installs, tests and repairs aircraft radio equipment during test flights. Studies circuit diagrams, drawings and other specifications for installation of radio equipment in aircraft. Tests and replaces defective radio instruments, components and parts such as radio compass, maker, beacon receptor, radio tubes, transformer etc. using hand tools and electrical measuring instruments. Installs radio equipment in aircraft as specified and solders or tightens loose and broken connections. Operates and tests equipment during tests flights for output, audio quality, frequency, calibration etc. and does necessary repairs and adjustments to ensure efficient performance. Signals ground station and adjusts frequencies of radio sets by turning sets screws. May check batteries and keep them fully charged. May service battery charging set and generator. May

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

conduct maintenance repairs of radio equipment.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.1700

Radio Craftsman, Maintenance

Radio Craftsman, Maintenance, Radio Mechanic Maintenance (Aircraft) tests, repairs, services and maintains aircraft radio receiving and transmitting sets in accordance with diagrams and prescribed specifications using hand tools and electrical measuring instruments. Examines equipment for damaged components and loose or broken connection and wires. Tests and replaces defective radio components and parts such as tubes (valve), condensers, transformers, resistors, etc. using hand tools. Makes necessary electrical connections according to diagrams and solders or tightens loose ones. Tests equipment for factors such as power output, frequency power, looseness of antennas and transmission lines, noise level, audio frequency and watt meters, ammeters, voltmeter, tube testers and other appropriate instruments, adjust receivers for sensitivity and transmitters for maximum output. Tests batteries with hydrometers, ammeter, etc., and maintains them fully charged. Performs scheduled test checks of radio equipment during test flights to ensure airworthiness of aircraft. Removes radio instruments and components for bench-checks, servicing, calibrating and over hauling of radio apparatus as and when necessary. May effect alterations and modifications to radio equipment under guidance of Radio Engineer, Telecommunication.

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.1801

Site Surveyor/R F Site Surveyor

R F Site Surveyor is responsible for identification offsite location, estimation of tower height and determination of antenna height and direction as per clutter.

Qualification Pack Details:

QP NOS Reference TEL/Q4103

QP NOS Name R F Site Surveyor

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.1901

Assembly Line Operator

Assembly Line Operator assembles together separate modules of the IT hardware equipment. The individual at work is responsible for assembling the different modules in the IT hardware to complete the product. The individual receives different electronic and electromechanical modules, fits and assembles them together. The operator may assemble multiple modules and/or products by following operating procedures for different models.

Qualification Pack Details:

QP NOS Reference ELE/Q4301

QP NOS Name Assembly Line Operator

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.2001

Field Technician (Computing and Peripherals)

Field Technician (Computing and Peripherals) is also called ‘Service Technician’, the Field Technician provides after sale support services to customers, typically, at their premises. The individual at work is responsible for attending to customer complaints, installing newly purchased products, troubleshooting system problems and configuring peripherals such as printers, scanners and network devices.

Qualification Pack Details:

QP NOS Reference ELE/Q4601

QP NOS Name Field Technician (Computing and Peripherals)

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.2002

Installation (Computing and Peripherals)

Installation (Computing and Peripherals) is also called ‘Field Technician’, the Installation Technician provides after sale installation support services to customers, typically, at their premises. The individual at work is responsible for installing newly

purchased products, troubleshooting system problems and, configuring peripherals such as printers, scanners and network devices.

Qualification Pack Details:

QP NOS Reference ELE/Q4609

QP NOS Name Installation (Computing and Peripherals)

NSQF Level 3

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

7422.2101

Field Technician (Networking and Storage)

Field Technician (Networking and Storage) is also called ‘Service Technician’, the Field Technician provides after sale support services to customers, typically, at their premises. The individual at work is responsible for attending to customer complaints, installing newly purchased products, troubleshooting system problems and, configuring hardware equipment such as servers, storage and other related networking devices.

Qualification Pack Details:

QP NOS Reference ELE/Q4606

QP NOS Name Field Technician (Networking and Storage)

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7422

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Information and Communications
Technology Installers and Servicers

7422.2201 **Test and Repair Technician**

Test Repair Technician: Also called 'IT Repair Technician', or 'Hardware Technician', the Test Repair Technician diagnoses and performs rework and repairs on the faulty module in the hardware. The individual at work is responsible for rectifying faults in the faulty module in of the IT hardware equipment brought in by the Field Technician. The individual receives the faulty module, diagnoses the problems, decides on the action to be taken, reworks and repairs on them.

Qualification Pack Details:

QP NOS Reference ELE/Q4602
QP NOS Name Test and Repair
Technician
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7422
Title Information and Communications
Technology Installers and Servicers

7422.2301 **Smartphone Repair Technician**

Smartphone Repair Technician diagnoses problems and repairs the faulty module of the smartphone. The individual at work is responsible for rectifying faults in the smartphone brought in by the customer. The individual receives the faulty Smartphone, diagnoses the problems, performs front end or hardware level repair as required, resolves software issues and ensures effective functioning before delivering back to customer.

Qualification Pack Details:

QP NOS Reference ELE/Q8104
QP NOS Name Smartphone Repair
Technician
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7422
Title Information and Communications
Technology Installers and Servicers

7422.3001 **Tower Technician**

Tower Technician is responsible to maintain site live24x7, maintain and repair level-1 faults/issues at telecom tower site, level-1 preventive and corrective maintenance and report faults to the supervisor in time. Individual also needs to travel inter-state and work during odd hours, when required.

Qualification Pack Details:

QP NOS Reference TEL/Q4100
QP NOS Name Tower Technician
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7422
Title Information and Communications
Technology Installers and Servicers

7422.9900 **Information and Communications Technology Installers and Servicers, Other**

Information and Communications Technology Installers and Servicers, Other include installers and servicers who install, repair and maintain telecommunications

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

equipment, data transmission equipment, cables, antennae and conduits and repair, fit and maintain computers not elsewhere classified.

products. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

ISCO 08 Unit Group Details:

Code 7422

Title Information and Communications Technology Installers and Servicers

Sub Division 75

Food Processing, Woodworking, Garment and Other Craft and Related Trades Workers

Food processing, wood working, garment and other craft and related trades workers treat and process agricultural and fisheries raw materials into food and other products, and produce and repair goods made of wood, textiles, fur, leather, or other materials.

The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product.

Tasks performed by workers in this sub-major group usually include: treating and processing meat, fish, grain, fruit, vegetables and related materials into food stuffs, and tobacco into tobacco products; tasting and grading food products and beverages; treating and processing natural fibres, skins and hides; making and repairing furniture and other goods made of wood; preparing hides, skins and pelts for further use; making and repairing textiles, garments, hats, shoes and related

751	Food Processing and Related Trade Workers
752	Wood Treaters, Cabinet-makers and Related Trades Workers
753	Garment and Related Trades Workers
754	Other Craft and Related Workers

Group 751

Food Processing and Related Trade Workers

Food processing and related trades workers slaughter animals, treat and prepare them and related food items for human and animal consumptions, make various kinds of bread, cakes and other flour products, process and preserve fruit, vegetables and related foods, taste and grade various food products and beverages, or prepare tobacco and make tobacco products.

Occupations in this Group are classified into the following Families:

7511	Butchers, Fishmongers and Related Food Preparers
7512	Bakers, Pastry-Cooks and Confectionery Makers
7513	Dairy Products Makers
7514	Fruits, Vegetables and Related Preservers
7515	Food and Beverage Tasters and Graders
7516	Tobacco Preparers and Tobacco Products Makers

Family 7511
Butchers, Fishmongers and Related
Food Preparers

Butchers, fishmongers and related food preparers slaughter animals, clean, cut and dress meat and fish, remove bones and prepare related food items or preserve meat, fish and other foods and food products by drying, salting or smoking.

cutters. Kills or stuns animal; thrusts knife into jugular vein to drain off blood; flays carcass, opens it and removes entrails; cuts and dresses carcass and washes down meat. May remove offal from carcasses and place carcasses in cold storage rooms.

ISCO 08 Unit Group Details:

Code 7511
Title Butchers, Fishmongers and Related Food Preparers

7511.0100
Butcher

Butcher slaughters animals, trims carcasses and prepares standard meat cuts. Kills or stuns animal and thrusts knife into jugular vein to drain off blood; flays carcass, opens it and removes entrails; removes offal and washes down meat; cuts and chops carcasses into standard meat cuts and into smaller portions according to customers' requirement. May specialize in slaughtering particular type of animal or in particular method of slaughtering such as 'halal' or 'Jhatka'. May perform one or more operations such as FLAYER, SKINNER, MEAT DRESSER, MEAT PROCESSOR and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7511
Title Butchers, Fishmongers and Related Food Preparers

7511.0200
Slaughterer

Slaughterer slaughters animals, flays and trims carcasses in readiness for meat

7511.0300
Sausage Maker

Sausage Maker prepares ingredients for sausages and operates sausage making machine. Weighs out various meats, spices and other ingredients according to formula and dumps them into mixing machine. Chops, minces and mixes ingredients by machine as required. Feeds sausage meat into machine and gathers sausage casing over machine spout. Starts machine to force meat into sausage casing. Pinches and ties end of filled casing. Empties mixed ingredients into containers. May grind meat. May fill casings with bulk sausage. May be designated according to kind of sausage made.

ISCO 08 Unit Group Details:

Code 7511
Title Butchers, Fishmongers and Related Food Preparers

7511.0400
Briner

Briner immerses fresh fish fillets in brine solution to condition them for wrapping

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

or freezing: Places fish fillets in wire basket and submerges basket in salt and water solution for specified time. Removes basket from brine tank and dumps fillets on conveyor belt.

ISCO 08 Unit Group Details:

Code 7511

Title Butchers, Fishmongers and Related Food Preparers

7511.0500

Pickler (Meat Product)

Pickler loads cuts of meat into pickling vats or barrels to cure meat preparatory to smoking: Packs and arranges meat in vats or barrels by hand or with meat hook to ensure maximum saturation. Turns valves to admit curing solution into vats or pours in solution by hand. Covers vat or barrel to keep meat protected and submerged in solution. Sticks trier (hook) into meat and smells trier to determine degree of curing. Opens valves or pulls bungs to drain vats and barrels, and removes cured meat for further processing. Dumps frozen meat in water tank to defrost it preparatory to curing. May roll barrels to rearrange meat and ensure maximum saturation. May flush or blow marrow from ham bones. May clean vats with water and steam hoses.

ISCO 08 Unit Group Details:

Code 7511

Title Butchers, Fishmongers and Related Food Preparers

7511.0600

Shactor

Shactor works in slaughtering, meat packing, or wholesale establishments performing precision functions involving

the preparation of meat. Work may include specialized slaughtering tasks, cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats. Trims head meat and otherwise severs or removes parts of animals heads or skulls. Wraps dressed carcasses and/or meat cuts. Trims, cleans, and/or cures animal hides. Removes bone and cuts meat into standard cuts to prepare meat for marketing. Grinds meat into sausage. Slaughters animals in accordance with religious law and determines that carcasses meet specified religious standards when slaughtering is performed for religious purposes. Slits open, eviscerates, and trims carcasses of slaughtered animals. Cuts, trims, skins, sorts, and washes viscera of slaughtered animals to separate edible portions from offal. Washes and/or shaves carcasses. Shackles hind legs of animals to raise them for slaughtering or skinning.

ISCO 08 Unit Group Details:

Code 7511

Title Butchers, Fishmongers and Related Food Preparers

7511.9900

Butchers, Fishmongers and Related Food Preparers, Other

Butchers, Fishmongers and Related Food Preparers, Other include all other workers those who slaughter animals, kill fish, clean, cut and dress meat and fish and prepare related food items or preserve meat, fish and other foods and food products by drying, salting or smoking not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7511

Title Butchers, Fishmongers and Related Food Preparers

Family 7512
Bakers, Pastry-Cooks and
Confectionery Makers

Bakers, pastry-cooks and confectionery makers make various kinds of bread, cakes, and other flour products, as well as handmade chocolate and sugar confectionery.

7512.0100
Baker (Baking Products)

Baker (Baking Products); Confectioner (Flour Confectionery) mixes and bakes ingredients according to recipes to produce breads, pastries, and other baked goods. Measures flour, sugar, milk, butter, shortening, and other ingredients to prepare batters, doughs, fillings and icings, using scale and graduated containers; dumps ingredients into mixing machine bowl or steam kettle to mix or cook them according to specifications; rolls, cuts, and shapes doughs to form sweet rolls, pie crust, tarts, cookies, and related products preparatory to baking; places dough in greased or floured pans, moulds, or on sheets and bakes in oven or on grill; controls temperature of oven by regulating thermostats or by adjusting dampers; checks progress of baking by observing colour of products and noting length of time in oven; removes baked products and places them on cooling racks; applies glaze, icing, or other topping to baked goods, using spatula or brush. May specialize in making one or more types of products such as breads, rolls, pies, or cakes and be designated accordingly as BAKER, BREAD; PASTRY MAKER; CAKE MAKER. May decorate cakes. May develop new recipes for cakes and icings.

ISCO 08 Unit Group Details:

Code 7512
Title Bakers, Pastry-Cooks and Confectionery Makers

7512.0200
Mixing Machine Attendant

Mixing Machine Attendant; Dough Mixer, Machine (Bakery) mixes flour, water, milk, sugar and other ingredients by machine according to instructions or specified formula to make dough for cakes, biscuits, wafer etc. Measures various ingredients such as flour, sugar, water and milk in required proportions and dumps them into mixing machine; turns knobs to set mixing time and maintain temperature of dough; starts machine; observes operation of mixing and automatic formation of dough in machine; feels dough for desired consistency; stops machine and dumps dough into trough. Pushes troughs of sponge dough into room to ferment for specified time; dumps raised sponged dough into mixer and adds ingredients to complete mixer; records number of batches mixed. May be designated according to type of dough mixed as BREAD DOUGH MIXER; PASTRY MIXER; COOKIE MIXER.

ISCO 08 Unit Group Details:

Code 7512
Title Bakers, Pastry-Cooks and Confectionery Makers

7512.0300
Oven Man (Bakery Products)

Oven Man (Bakery Products) tends stationary or rotary hearth oven that bakes bread, pastries, and other bakery products. Heats oven to required

temperature; places pans of unbaked goods on blade of long handled paddle; opens oven door and slides leaded paddle into oven; jerks paddle from under pans to deposit them on hearth; regulates and controls heat and humidity of oven by observing gauges, turning valves or other methods; notes colour of products during baking to ensure uniformity of finished products; removes baked goods from oven with paddle, and places them on tiered racks for cooling, flips switch to position hearth for loading and unloading when tending rotary hearth oven. May prepare doughs and wrap papers. May be designated according to type of oven tended as DRAWPLATE OVEN MAN; PEEL OVEN MAN; ROTARY PEEL OVEN MAN.

ISCO 08 Unit Group Details:

Code 7512
Title Bakers, Pastry-Cooks and Confectionery Makers

7512.0400

Sweet Meat Maker

Sweetmeat Maker; Halwai prepares one or more kinds of Indian sweets by mixing flour, sugar, milk, cream and other ingredients to form dough or paste according to direction or formula and frying them in pans in desired forms and shapes. Mixes ingredients such as flour, sugar, milk, ghee, nuts and water in required proportion according to instructions or formula; tastes and feels dough or paste for desired consistency; rolls, cuts and shapes dough to form sweet rolls and related products preparatory to frying; fills pan with required quantity of oil or ghee and places pan on heated oven; places dough in pan to fry controlling temperature of oven regulating fire; checks progress of frying by observing colour of products and

noting length of time in oven; removes fried products and keeps them aside for a cooling; prepares sugar syrup by boiling sugar and water in prescribed proportion to desired consistency; soaks products in sugar syrup where required; applies silver foils and other ingredient to make product more presentable. May specialize in making one or more types of products such as Peda; Gulab Jamoon; Rasgola. May develop new recipes for sweets.

ISCO 08 Unit Group Details:

Code 7512
Title Bakers, Pastry-Cooks and Confectionery Makers

7512.0500

Candy Maker

Candy Maker mixes together and cooks candy ingredients by following, modifying or formulating recipes to produce product of specified flavour, texture, and colour. Cooks ingredients at specified temperatures in open fire or steam-jacketed kettles or in batch or continuous pressure cookers; caste candy by hand using moulds and funnel, or tends machine that caste candy in starch or rubber moulds; spreads candy into cooling and heating slabs; kneads in machine-pulls candy; spins or rolls candy into strips ready for cutting; examines, feels and tastes product to evaluate colour, texture, and flavour; adds ingredient or modifies cooking and forming operations as needed. May be designated according to type of candy produced as CARAMEL CANDY MAKER, COCONUT CANDY MAKER, TOFFEE CANDY.

ISCO 08 Unit Group Details:

Code 7512
Title Bakers, Pastry-Cooks and Confectionery Makers

7512.0600**Panman (Confectionery)**

Panman; Revolving Pan Operator; Coating Machine Operator; Pan Operator (Confectionery) operates steam heated revolving pan to coat items such as candy, nuts and chewing gum tablets, with syrup, wax colouring matter, or polish. Dumps products into pan and starts pan revolving; pours slowly specified quantity of syrup over whirling candy or other product and passes hands through batch to spread syrup uniformly; turns steam valve to heat pan and heat almonds, nuts or other centres in pan; examines and feels product to determine adequacy of coating, and applies successive charges of syrup until specified coating thickness is attained; adds flavouring and colouring ingredients in final coating as specified; may mix together and apply emulsified or dry ingredients, such as gum solution, corn starch, and powdered sugar to product. May transfer contents to polishing pans and specified ingredients to polishing coating. May set temperature controls and start blower to dry syrup. May be designated according to product coated or polished as ALMOND-PAN-FINISHER; CHOCOLATE PEANUT PANMAN.

ISCO 08 Unit Group Details:

Code 7512

Title Bakers, Pastry-Cooks and Confectionery Makers

7512.0700**Plate Worker, Confectionery**

Plate Worker, Confectionery prepares syrup made by Cooker Operator by mixing colour, flavour etc. on iron plate kept cool by water for cutting and forming it into candies of desired size and shape. Spreads

candy on iron plate table fitted with cold water container at bottom; adds specified amount of colouring and flavouring agents; mixes ingredients until colouring and flavouring are uniformly distributed; examines, feels and tastes product to evaluate colour, texture, and flavour; drains out hot water from container and replaces it with cold water to make cooling effective; hands over product to Machine man for further processing.

ISCO 08 Unit Group Details:

Code 7512

Title Bakers, Pastry-Cooks and Confectionery Makers

7512.0800**Chocolate Maker**

Chocolate Maker makes chocolate slabs or bars grinding cocoa beans, heating ingredients and forming slabs. Grinds cracked cocoa beans in mill to reduce them to thick liquid or paste; presses cocoa-butter from ground beans, using hydraulic press, to obtain blocks of cocoa; grinds pressed flocks of cocoa to thick liquid; mixes liquid chocolate, sugar, and other ingredients in required proportions to a dough like consistency in machine, feeds coarse mixed chocolate into machine to convert it to flakes, heats mixed flaked chocolate and cocoa-butter in steam heated pans to desired texture and flavour to obtain chocolate bars or slabs.

ISCO 08 Unit Group Details:

Code 7512

Title Bakers, Pastry-Cooks and Confectionery Makers

7512.0900

Conche Operator (Sugar and Confectionery)

Conche Operator (sugar and conf.) operates conche machine to heat and agitate refined chocolate mass with cocoa butter to enrich colour, flavour, and texture: Pumps specified amount of chocolate mixture into steam-heated stationary tank or rotary drum. Meters out specified amount of such ingredients as cocoa butter or flavourings. Turns steam valves and adjusts thermostat to heat contents of tank or drum to specified temperature. Pushes lever to start agitators and rotate drum. Pushes levers to change rate of agitation, drum rotation, and temperature, following specified time cycles. Observes and tastes mixture to evaluate conformity to standard and sends sample to laboratory for analysis. Adjusts temperature, agitation speed and timing cycle, and adds ingredients, such as cocoa butter and lecithin, according to laboratory findings. Pumps mixture to storage tank.

ISCO 08 Unit Group Details:

Code 7512
Title Bakers, Pastry-Cooks and Confectionery Makers

7512.1000**Yeast Maker (Beverage)**

Yeast Maker controls equipment to prepare mixture of mash and yeast for use in manufacture of distilled liquors: Weighs specified quantities of rye and malt meal, depending upon amount of yeast required, and dumps them into yeast tub (cooker) filled with specified amount of water. Opens valves to admit steam that circulates through coil pipes in tub and cooks the mixture. Starts revolving blades in tub to agitate mixture as it cooks.

Observes temperature gauges and increases or decreases steam pressure to maintain constant temperature as mash cooks. Pours yeast culture into cooked mash and mixes mash with revolving blades. Stops revolving blades when mash and yeast are thoroughly mixed. Tests mash to determine temperature and specific gravity (proof), using thermometer and hydrometer, and records results. Observes gauges and increases or decreases steam to ensure that mash ferments at constant temperature. Notifies Fermentation Operator (beverage) when mash is ready to be pumped into fermentation tank. Removes sample of mash for laboratory analysis.

ISCO 08 Unit Group Details:

Code 7512
Title Bakers, Pastry-Cooks and Confectionery Makers

7512.9900**Bakers, Pastry Cooks and Confectionery Makers, Other**

Bakers, Pastry-cooks and Confectionery Makers, Other include all other workers who perform variety of routine and low skilled tasks in baking and confectionery and may be designated according to nature of work performed such as: Helper (Confectionery) assists in weighing, mixing of ingredients, heating them in steam or vacuum pans, adding flavour and colour to dough or paste, moulding, shaping, cutting and wrapping of soft or hard stuff for finished products. Bread Slicer slices bread using hand operated or power driven slicing machine Baker Helper helps baker by performing duties as kneading dough, cutting dough into desired sizes removing baked products from oven. Mill Room Hand (Chocolate) performs one or

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

more operations in chocolate making e.g., grinding, refining, sieving as required.

ISCO 08 Unit Group Details:

Code 7512
Title Bakers, Pastry-Cooks and Confectionery Makers

Family 7513

Dairy Products Makers

Dairy products makers process butter and various types of cheese, cream or other dairy products.

7513.0100 Dairy Worker, General

Dairy Worker, General performs all or several tasks in preparation of various dairy products. Pasteurises raw milk or other dairy product to remove harmful bacteria. Develops bacterial culture for use in making butter, buttermilk, cheese and other products. Separates cream from milk and churns it into butter. Curdles milk and converts curds into cheese. May make ice-cream.

ISCO 08 Unit Group Details:

Code 7513
Title Dairy Products Makers

7513.0200 Separator Man

Separator Man; Cream Separator; Cream man (Dairy) operates milk separator to separate cream from milk. Assembles and adjusts separator as necessary, according to type of product for which separated cream or milk is to be used; places empty containers below cream and skimmed

outlets; pours milk into separator; switches on centrifugal machine which automatically carries milk into bowl and separates milk into fat and skimmed milk; regulates separator to obtain required percentage of cream for making butter or ghee; cleans plant using hot water, soda and other detergent solutions. May also attend to pasteurizing plant.

ISCO 08 Unit Group Details:

Code 7513
Title Dairy Products Makers

7513.0300 Butter Maker

Butter Maker performs all or several tasks for making butter. Pasteurizes milk to eliminate harmful bacteria. Separates cream from milk in centrifuge. Adds lactic ferment to ripen cream. Pours or pumps cream into mechanical churn. Starts churn to make butter, controlling butter moisture, temperature and time of churning. May add salt to butter in churn. May take samples of butter for testing. May boil and strain butter to make 'ghee' and be designated as GHEE MAKER

ISCO 08 Unit Group Details:

Code 7513
Title Dairy Products Makers

7513.0400 Cheese Maker

Cheese Maker cooks milk and specified ingredients to make cheese according to formula. Pasteurizes and separates milk to obtain prescribed butter fat content; turns valves to fill vat with milk and heat milk to specified temperature; starts agitator to mix ingredients; tests samples of milk for acidity and allows agitator to mix ingredients until specified level of acidity

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

is reached; dumps and mixes measured amount of rennet into milk; stops agitator to allow milk to coagulate into curd; cuts curd or separates curd with hand scoop to release whey (watery part); observes thermometer, adjusts steam valve, and starts agitator to stir and cook curd at prescribed temperature for specified time; squeezes and stretches sample of curd with fingers and extends cooking time to achieve desired firmness or texture; scoops curd into burlap containers to drain off excess moisture; places cheese in moulds and presses it into shape. May salt cheese by immersing them in brine or roll cheese in dry salt, pierce or smear cheese with cultured wash to develop mould growth, and place or turn cheese blocks on shelves to cure cheese. May supervise ripening of cheese. May specialize in making particular type of cheese. May Pasteurise milk and operate centrifugal machine to separate cream out of pure milk.

ISCO 08 Unit Group Details:

Code 7513
Title Dairy Products Makers

7513.0500

Ice Cream Maker

Ice-Cream Maker makes ice-cream by mixing milk, sugar and other ingredients and by freezing mixture in freezing machine. Measures and mixes ingredients according to recipe; pasteurises mixture to eliminate harmful bacteria; pumps ingredients through a homogeniser to break-down butter-fat globules; pours mixture into freezing machine; starts machine to stir and cool mixture; unloads machine when ice-cream of required consistency is obtained; cleans and sterilizes machines, and other equipment with hot water. May form ice-cream into

special shapes. May operate ice-block washing machine.

ISCO 08 Unit Group Details:

Code 7513
Title Dairy Products Makers

7513.9900

Dairy Products Makers, Others

Dairy Workers (non-farm), Other include all other dairy workers not elsewhere classified, for example, those salting cheese by immersing them in brine or by rubbing them with dry salt, sterilising milk; operating machines which homogenise milk, moulding butter or cheese into shape, packing and wrapping butter with paper, making condensed or powdered milk, etc. and may be designated according to nature of work performed.

ISCO 08 Unit Group Details:

Code 7513
Title Dairy Products Makers

Family 7514

Fruits, Vegetables and Related Preservers

Fruit, vegetable and related preservers process or preserve fruit, nuts and related foods in various ways including cooking, drying, salting, or juice or oil extraction.

7514.0100

Oil Expeller Man

Oil Expeller Man; Oil Expeller Operator tends machine that presses oil seeds, such

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

as cotton seed, copra, castor seed to extract oil. Feeds moistened oil seeds into hopper of machine; turns hand wheels to adjust rollers to flatten oil seed; turns control of heat drier to specified temperature and opens chute to admit flattened oil seed to drier; turns steam valve of heat cooker to cook dried oils seed; turns hand wheels to adjust roller pressure of oil expeller; feels samples of expelled oil seed to determine that sufficient quantity of oil has been removed; ensures that pressed seed cakes are released at discharge end and that oil flows into oil tank from peripheral surface of expeller; stops machine when jammed and makes necessary adjustments to maintain continuous production keeps work place clean and tidy. May filter oil in cloth-filter press.

ISCO 08 Unit Group Details:

Code 7514
Title Fruits, Vegetables and Related Preservers

7514.0200 Oil Crusher Operator, Animal Driven

Oil Crusher Operator, Animal Driven operates animal driven crusher to extract oil from oil seeds, such as cotton seed, caster seed, groundnut, and copra. Places empty container below crusher to collect oil; harnesses bullocks, buffalo, camel to crusher; feeds seeds into hopper of crusher in required quantity and drives animal to start crusher; sprinkles prescribed quantity of water over oil seeds for moistening them; adjusts pressure between mortar (vessel or hopper) and pestle and ensures that oil is properly extracted. Examines oil cakes visually or by feel of hand to determine that sufficient quantity of oil has been

removed; removes container when filled with oil at delivery-end; replaces filled container with empty one; takes out oil cakes from hopper and fills it with another batch of oil seeds to maintain continuous production. May operate mechanical crusher for extracting oil from seeds.

ISCO 08 Unit Group Details:

Code 7514
Title Fruits, Vegetables and Related Preservers

7514.0300 Grinder, Hand (Food Grain)

Grinder Hand (Food grain) grinds wheat, pulses, spices or other food grains into smaller pieces or powder, on hand operated grinding mill. Sets mill by adjusting roller according to fineness of grinding desired; revolves roller of mill by hand, feeding grains into hopper of mill at regular intervals; examines crushed product periodically by feel of fingers and adjusts roller as necessary. May shift grain using mesh. May clean mill stones. May take assistance of other grinder or helper in feeding mill.

ISCO 08 Unit Group Details:

Code 7514
Title Fruits, Vegetables and Related Preservers

7514.0400 Pounder, Hand (Food Grain)

Pounder, Hand (Food grain) pounds grain or spices in iron, wooden or stone mortar with pestle to remove bran from grain or to crush into smaller pieces or powder. Selects mortar and pestle according to type of food-grain or spices to be pounded. Puts requisite quantity of grain

or spices in mortar and pounds it with pestle. Examines product periodically by sight and touch and continues pounding till product is crushed to desired fineness; sifts product using sieve and re-crushes coarse residue to required fineness; cleans equipment by hand. May weigh or measure specified quantities of various ground spices and mix them according to formula for use. May pound grain to remove bran from grain using long wooden pestle.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

7514.0500**Parcher (Food Grain)**

Parcher (Food grain) roasts wheat, gram, maize, peanuts and other food grains. Puts requisite quantity of sand in pan and places pan on hot oven; allows sand to heat up in pan; puts product in pan and mixes it with hot sand for roasting using long metal ladle; removes pan from oven when product is properly roasted; sifts roasted product from sand using sieve and allowing sand to fall in pan; collects product and repeats process till all food grain is parched; maintains proper temperature of oven by regulating fuel. May prepare grain for roasting by soaking in water and then drying it.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

7514.0600**Washing Machine Attendant, Cleaner (Food Grain)**

Washing Machine Attendant; Cleaner (Food Grain) tends washing machine for washing and cleaning food grains preparatory to milling or further processing. Starts machine; feeds machine with grain by hand or adjusts flow of grain from chute; regulates flow of water into grain by manipulating lever; observes automatic washing of grain visually to ensure proper washing; may wash grains in tank filled with required quantity of water and soaking it for a prescribed period. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

7514.0700**Cook, General (Food Canning and Preserving)**

Cook, General (Food Canning and Preserving), cook meat, fruits, vegetables or other food according to recipes in large quantities preparatory to canning or preserving. Weighs or otherwise measures ingredients, according to recipe; loads ingredients into kettle or pressure cooker pans and frying machines, manually or by means of chute or conveyor; observes thermometer and gauges, and turns valve to admit steam to pressure cookers or lights gas burner to heat and cook contents of kettles; cooks ingredients adding syrup, spices, sugar, colouring matter or other substances as required; stirs mixture in kettle to blend and prevent scorching of contents; drains off cooked ingredients by opening valve at bottom of vessel or by blowing material through drain with steam. May stir contents with mechanical agitator. May test mixture with hydrometer or other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

instrument to determine consistency. May be designated according to type of food product made, such as JAM MAKER; MARMALADE MAKER, etc.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

7514.0800

Condiment Maker (Food Canning and Preserving)

Condiment maker (Food Canning and Preserving) makes various kinds of chutneys, pickles and ketchup from vegetables, fruit, fish, meat and spices using preservatives such as vinegar, salt, sugar, oil and other ingredients. Sorts and selects mature vegetables, fruits etc., cleans product with water and discards decayed ones; cuts or chops product into small pieces; mixes ingredients such as salt, vinegar or sugar in required proportion in barrels, vats or jars according to formula to make pickling or flavouring brine; dumps product such as vegetables, fruit, fish or meat into solution to soak or cook for specified time; examines, feels, and tastes product to evaluate colour and flavour; adds ingredients or modifies cooking and forming operations, as required. May cook ingredients separately before mixing. May pack product into containers in layers, covering each layer with preservative compound. May specialize in making particular type of condiment and be designated accordingly as PICKLE MAKER; CHUTNEY MAKER OR SAUCE MAKER.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

7514.0900

Cannery Worker (Can and Preservation)

Cannery Worker (Can and Preservation) performs any combination of following tasks to can, freeze, preserve, or pack food products. Dumps or places food products in hopper, on sorting table, or on conveyor. Sorts or grades products according to size, colour, or quality. Feeds products into processing equipment, such as washing, refrigerating, peeling, coring, pitting, trimming, grinding, dicing, cooking, or slicing machines. Trims, peels, and slices products with knife or paring tool. Feeds empty containers onto conveyor or forming machines. Fills containers, using scoop or filling form, or packs by hand. Counts, weighs, or tallies processed items according to specifications. Inspects and weighs filled containers to ensure product conforms to quality and weight standards. Places filled containers on trays, racks, or into boxes. Loads, moves, or stacks containers by hand or hand truck, and cleans glass jar containers, using air hose.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

7514.1000

Pickler (Can and Preservation)

Pickler (Can and Preservation) pickles prepared food products in preservative or flavouring solutions: Mixes ingredients, such as salt, vinegar, or sugar in barrels, vats, or tanks, according to formula, to make pickling or flavouring brine. Dumps product, such as vegetables, fruit, fish, fish

eggs, or meat into solution to soak for specified time. May pack product into barrels in layers, covering each layer with preservative compound. May remove contents from containers by hand or with dip net.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

7514.1100

Preservative Filler, Machine (Can and Preservation)

Preservative Filler, Machine (Can. and Preservation) tends machine that automatically dispenses brine, oil, salt, or syrup into containers of food products prior to lidding or capping: Starts machine and turns valves to allow flow of solution. Feeds or guides containers onto conveyor that carries containers under dispensing nozzles. Observes filling operation and adjusts flow of solution or material to optimum volume. Removes broken jars from conveyor and deposits jars in waste receptacles. May fill machine reservoirs with dry salt, oil, brine, or sugar solution as required.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

7514.9900

Fruits, Vegetables and Related Preservers, Others

Fruit and Vegetable Preservers, other perform variety of routine tasks in canning and preserving food, fruits and vegetables not elsewhere classified, and may be

designated according to nature of work performed such as: Peeler Hand peels skin of fruits and vegetables using hand knife. Grader examines, classifies and separates fruits, vegetables and fish according to size, quality, colour, condition or species. Washer tends machine that washes raw fruits or vegetables preparatory to canning, freezing or packing. Feeder Charger feeds machine with fruits or vegetables by hand for washing, shelling, shredding, cooking and pulping.

ISCO 08 Unit Group Details:

Code 7514

Title Fruits, Vegetables and Related Preservers

Family 7515

Food and Beverage Tasters and Graders

Food and beverage tasters and graders inspect, taste and grade various types of agricultural products, food and beverages.

7515.0100

Tea Taster

Tea Taster tastes sample of brewed tea to determined quality and grade and suggests proportions of different grade to be, blended according to market requirement. Cooks or brews small quantities of cured tea leaves in required quantity of water heated to specified temperature, checks moisture contents or samples, using Moisture Meter; infuses different samples of tea in cups in tea tasting room; examines and tastes different infusion for colour, density, aroma and flavour to determined grade, approximate market value, or acceptability to consumer taste; writes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

blending formulas for guidance of workers who prepare products in commercial quantities. Keeps record of different grades of tea; visits factory to ensure correct processing. Is designated as COFFEE TASTER if engaged in tasting coffee. May meet buyers of tea.

ISCO 08 Unit Group Details:

Code 7515
Title Food and Beverage Tasters and Graders

7515.0200 Liquor Taster

Liquor Taster tastes sample of liquor to classify it according to standards. Tastes samples of liquor and ascertains and judges such qualities as flavour, aroma and colour of liquor by use of his senses. Classifies samples according to system of standard and recommends specific blends of lots that will be accepted commercially. May be required to ascertain place of origin and age of wine or liquor.

ISCO 08 Unit Group Details:

Code 7515
Title Food and Beverage Tasters and Graders

7515.0300 Taster (Food)

Taster (Food) tastes samples of food or beverages to determine palatability of product or to prepare blending formulas: Cooks or brews small lots of beverages or other food products and tastes product to determine grade, approximate market value, or acceptability to consumer tastes. Writes blending formulas for guidance of workers who prepare food products in

commercial quantities. May purchase food products.

ISCO 08 Unit Group Details:

Code 7515
Title Food and Beverage Tasters and Graders

7515.0400 Grader, Meat

Grader, Meat examines animal carcasses to determine grade in terms of sales value: Examines carcasses suspended from stationary hooks or hooks attached to overhead conveyor to determine grade based on age, sex, shape, thickness of meat, quantity and distribution of fat, colour, texture, and marbling of lean meat. Attaches grade identification tag to carcass. May estimate weight of carcass or observe dial of automatic weighing scale to determine weight of carcass.

ISCO 08 Unit Group Details:

Code 7515
Title Food and Beverage Tasters and Graders

7515.9900 Food and Beverage Tasters and Graders, Other

Food and Beverages Tasters and Graders, Other include workers who inspect, taste and grade various types of agricultural products, food and beverages not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7515
Title Food and Beverage Tasters and Graders

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family 7516

Tobacco Preparers and Tobacco Products Makers

Tobacco preparers and tobacco products makers prepare tobacco leaves and make various tobacco products.

7516.0100

Tobacco Curer

Tobacco Curer drives green tobacco leaves in heated tobacco barns. Suspends bunches of green tobacco leaves on strings in barn; heats barn by lighting fire inside furnace, to required temperature; regulates temperature and draught controls, depending on type of tobacco and weather conditions, until leaves are yellowed; opens barns door periodically to examine colour and moisture content of leaves to determine when to increase heat and regulate draught controls to dry leaves and stems to desired quality and colour; removes dried and cured tobacco from barn and piles them separately for storing. May cure and dry green tobacco leaves in open sun.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.0200

Tobacco Grader

Tobacco Grader; Tobacco Sorter grades cured tobacco leaves according to colour, texture, size etc. of leaf preparatory to marketing or processing into tobacco products. Spreads cured and dried leaves on table; picks up leaves one by one and examines, feels and smells and

determines grade according to size, colour, extent of damage, texture and aroma; strips defective portions from leaves; stacks the leaves into piles according to grade and keeps record of graded tobacco. May recommend conditioning prior to further processing. May remove stems.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.0300

Blender, Tobacco

Blender, Tobacco mixes various grades and kinds of tobacco leaves in accordance with formula to form blend of distinctive flavour. Removes leaves of tobacco from each of several bundles of tobacco leaves; spreads leaves on trays and picks out those unsuitable for desired blend; weighs out quantities of each kind of leave according to formula and mixes them together. May spray tobacco with oils, cloves, and other spices and kneads tobacco to blend in flavouring.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.0400

Conditioner, Tobacco

Conditioner, Tobacco treats tobacco leaves by moistening them with water or steam to make them pliable for further processing. Moistens leaves by dipping them in or spraying them with water, stacks leaves on drain board, covers them with hessian or other cloth and allows

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

them to absorb moisture for a specified time; or feeds leaves into steam heated conditioning machine, observes gauzes, maintains appropriate steam pressure and allows leaves to absorb steam for specified time. May mix or blend several grades and types of tobacco and condition it for processing. May specialize in conditioning a particular kind of tobacco leaf and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.0500

Cigar or Cheroot Roller

Cigar or Cheroot Roller; Cigar or Cheroot Maker makes cigars and cheroots from tobacco leaves by hand. Dries in sun tobacco leaves soaked in jaggery solution. Removes rib and stalk from dried tobacco leave. Sorts out suitable leaves for binding. Cuts filler tobacco leaves according to size and shape of cigar or cheroot to be made. Binds by hand filler leaves with binding leaf giving required shape of cigar or cheroot and pastes end of binding leaf. Rolls cigar or cheroot on slab or stone or hand surface giving necessary pressure with hands to obtain smooth roundness. Selects suitable tobacco leaf for wrapping (superior quality imported thin tobacco leaf). Cuts wrapping leaf according to size and shape of cigar or cheroot by scissors and wraps it on cigar or cheroot giving it final shape and smooth finish. Cuts cigar or cheroot ends to obtain uniformity in size, using scissors or knife.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.0600

Cigar or Cheroot Roller Helper

Cigar or Cheroot Roller Helper assists Cigar or Cheroot Roller in making cigars or cheroots by performing various simple operations such as removing mid-rib, stalks from tobacco leaves, cutting ends of cigars or cheroots to make them into uniform size, and labelling them with trade bands. Collects tobacco leaves, soaks them in water to soften; takes out moistened leaf, cuts and strips midrib and stalk avoiding damage to leaf; stacks stripped leaves in piles keeping right and left halves separate; its broad leaves into rolls for use as roller leaf; cuts short leaves by hand scissors into small pieces for use as fillers for cigar or cheroot; cuts cigar or cheroot ends with hand scissors to make them uniform of size; pastes manufacturer's label at one end of cigar or cheroot. May stack tobacco for curing and drying. May roll or make cigar or cheroot. May pack finished cigars or cheroots in boxes.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.0700

Bidi Maker

Bidi Maker; Bidi Roller makes bidis by hand by rolling shredded tobacco in bidi leaves. Collects required quantity of shredded tobacco and bidi leaves; soaks bidi leaves in water to moisten to make them pliable; cuts them into pieces according to size of bidi to be made using tin stencil or plate and hand scissors; puts

measured quantity of tobacco filling on cut leaf and rolls it with fingers to make bidi of desired size and shape (conical) closing broader open end and pressing conical end flat; ties piece of thread round rolled bidi to hold tight leaf and tobacco filling; checks visually whether bidis are of uniform size; ties finished bidis into bundles of twenty-five, fifty etc. as required; places bidi bundles in trays or baskets and delivers finished bidis to Bidi Checker.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.0800

Furnace Man, Bidi

Furnace Man, Bidi bakes bidis in heated furnace to remove moisture and dampness. Heats furnace by lighting firewood in fire chamber; removes hot cinders and ash from fire chamber when furnace attains desired temperature; paces steel tray containing bidis on long handle wooden ladle; pushes wooden ladle with trays inside furnace and stacks trays on furnace bed; closes furnace door and allows bidis to bake for specified period; removes baked bidis from furnace and examines them to ensure proper baking.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.0900

Bidi Checker

Bidi Checker; Bidi Counter checks quality and number of bidis packed in bundles to

maintain manufacturing standard. Examines bidi bundles to ensure proper filling and rolling of bidis and appropriate number of bidis in bundle. Sorts out improperly filled or rolled, broken or otherwise defective bidis from good ones; checks samples to ensure quality and quantity of tobacco filling. Places checked bundles on trays or in baskets to be removed for further processing. May roll bidis and wrap and pack small specified quantities of ready bidis in different types and sizes of paper packages, and then pack small bundles into bigger ones; and be designated as BIDI PACKER. May also heat raw bidis in furnace to required standard of heat.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.1000

Snuff Maker

Snuff Maker makes snuff tobacco by grinding and blending various types of tobacco. Places tobacco leaves, stalks and chopped tobacco in a bin, adds salt solution and allows mixture to ferment for specified period of time; watches fermentation, turning mixture occasionally; roasts fermented tobacco on heated mud pan and pulverises it to flour-like consistency in a grinding machine or mortar using pestle; sifts snuff flour through fine mesh-wire or cloth screens; blends various types of snuff according to formula, and adds aromatic oils or essences to obtain desired flavour. May specialize in a particular snuff making process such as fermenting, grinding, sifting or blending and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.1100

Chewing Tobacco Maker

Chewing Tobacco Maker; 'Zarda' Maker makes chewing tobacco from tobacco leaves. Collects required type of tobacco leaves and dries them in sun for a specified period for proper conditioning; pounds dried leaves in a mortar using wooden pestle to reduce them into small pieces of required size; dyes broken leaves with edible chemicals and dries them in sun; treats pounded tobacco with spices and similar ingredients in accordance with formula and adds scented solution or essence to form blend of distinctive flavour. May specialize in making particular kind of chewing tobacco such as Banarasi, Moradabadi, Zafrani or Mohini.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

7516.9900

Tobacco Preparers and Tobacco Products Makers, Other

Tobacco Preparers and Tobacco Products Makers, Other include workers who prepare tobacco leaves and make various tobacco products not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7516

Title Tobacco Preparers and Tobacco Products Makers

Group 752

Wood Treaters, Cabinet-makers and Related Trades Workers

Wood treaters, cabinet-makers and related trades workers preserve and treat wood; produce wafer boards, particleboards, hardboards, insulation boards, plywood, veneers and similar wood products; and make, decorate and repair wooden furniture, vehicles and other wooden products. They use specialized hand tools and set-up, operate and tend wood processing and woodworking equipment, machines and machine tools.

Occupations in this Group are classified into the following Families:

7521 Wood Treaters

7522 Cabinet Makers and Related Workers

7523 Wood Working Machine Tool Setters and Operators

Family 7521

Wood Treaters

Wood treaters operate and tend wood treatment processing equipment and machines to remove bark from logs, produce wood chips, season, preserve and treat wood, and produce wafer boards, particleboards, hardboards, insulation boards, plywood, veneers and similar wood products.

7521.0100

Kiln Operator, Wood

Kiln Operator, Wood operates steam kiln for seasoning or drying wood to specified

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

moisture content. Feeds water into boiler and lights fire in boiler fire-box. Directs workers to load and place lumber in kiln and ascertains moisture content of wood at various locations in kiln by moisture metre or by sawing and weighing samples of wood before and after drying. Waits till boiler acquires sufficient heat, plans drying cycle according to moisture content, dimensions and species of wood and adjusts valve to release and regulate flow of steam into kiln. Starts water pump to feed additional water into boiler and sets automatic controls to regulate kiln temperature and humidity for specified time. Switches on fans inside kiln and gets kiln doors closed to make it air-tight. Records humidity and kiln temperature and controls valves to regulate steam supply while maintaining balance between temperatures and moisture content to avoid damage to wood. Keeps lumber in kiln for specified period. Opens kiln on completion of drying cycle, verifies moisture content of wood and directs workers to remove lumber from kiln when dried. May work simultaneously as Boiler Attendant. May attend to other work when kiln is not working.

ISCO 08 Unit Group Details:

Code 7521
Title Wood Treaters

7521.0200

Impregnator, Wood

Impregnator, Wood treats wood with chemical to protect it against decay or parasites. Mixes chemicals in prescribed ratio in open tanks or vats, heats it to required temperature and checks its strength. Assesses moisture content of wood and gets it dried, if necessary, to prescribed standard. Dips wood products in tank manually or using crane, rods etc.

as necessary. Controls temperature of solution, determines amount of impregnation and keeps them (wood products) immersed in preservative solution for prescribed period. May brush, paint or inject preservative on wood or treat it with gas.

ISCO 08 Unit Group Details:

Code 7521
Title Wood Treaters

7521.0300

Wood Bender

Wood Bender bends wooden parts to required shape by steaming, heating, softening and drying. Steams wooden parts or heats them in boiling water to make them soft and pliable. Bends steamed or heated parts gradually by hand into shape or places them in manually operated press to obtain desired curvature. Fastens parts into place or keeps them in sun to dry and set in permanent shape. May maintain continuous application of steam to ensure pliability while pressing to shape.

ISCO 08 Unit Group Details:

Code 7521
Title Wood Treaters

7521.0400

Wood Treater

Wood Treater treat underground portion of transmission poles with chemical preservative after installation: Digs around base of pole to expose area susceptible to decay, using pick and shovel. Scrapes dirt and other residue from pole surface and chips away decayed wood, using hand tools. Paints dressed area with preservative solution, using

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

brush. Wraps treated portion of pole with waterproof paper, fastening paper with hand stapler. Refills hole and packs earth firmly around base of pole, using shovel.

ISCO 08 Unit Group Details:

Code 7521
Title Wood Treaters

7521.0500

Grader (Wood Working)

Grader (woodworking) inspects and grades milled, rough-sawed, or dimensional stock lumber according to standards: Examines lumber on table, moving belt, chain conveyor, or in racks for defects, such as knots, stains, decay, splits, faulty edges, pitch pockets, wormholes, and defective milling. Grades lumber, using calliper rule, to ensure specified dimensions. Marks lumber to indicate grade and processing instructions, using marker. Tallies pieces of lumber according to grade and board footage. May determine cuts to be made to obtain highest marketable value from material. May remove unsatisfactory pieces from conveyor or table and place pieces on stacks, in bins, or on carts. May scale board footage, using calibrated scale on lumber ruler, and record results.

ISCO 08 Unit Group Details:

Code 7521
Title Wood Treaters

7521.9900

Wood Treaters, Other

Wood Treaters, other include all other wood treaters engaged in forming and preserving wood by application of heat, seasoning and chemical treatment, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7521
Title Wood Treaters

Family 7522

Cabinet Makers and Related Workers

Cabinet-makers and related workers make, decorate and repair wooden furniture, carts and other vehicles, wheels, parts, fittings, patterns, models and other wooden products using woodworking machines, machine tools and specialized hand tools.

7522.0100

Furniture Maker, Wood

Furniture Maker, Wood makes and repairs chairs, tables, benches, desks, shelves etc., by common carpentry processes using hand and or power tools or both. Studies drawing or sample, calculates sizes and quantity of timber required. Prepares patterns of different parts of article to be made on card board. Marks off pieces using patterns, square, pencil, rule or scribe and saws and shapes them according to specifications by sawing, planning, drilling etc. Marks and makes, necessary joints such as dove-tail, Tenon-mortise, lap etc. Checks dimensions and fitting of joints frequently. Fixes hinges, hooks etc., at required places. Assembles different parts and fits them permanently by gluing, drilling, dowelling, nailing screwing etc., as necessary. Fills up superfluous holes etc., with putty; smoothens surface using sand paper, earth (yellow) and files. Checks completed articles and ensures correct fitting, rigidity

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and finish. Sharpens his own tools. May polish or paint articles made.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.0200

Cabinet Maker

Cabinet Maker makes high class wooden furniture such as ward-robes, dressing tables, sofa sets, radio cabinets etc., according to design or specification using power or hand tools or both. Studies drawing or samples. Selects timber and calculates quantity required. Marks cuts and shapes oversize pieces to required dimensions by sawing, planing, etc. Makes necessary joints such as dove-tail, tenon-mortise, half lap etc. Checks joints frequently and finishes them ensuring firmness and correct fitting. Assembles parts for trial, rectifies defects if any and then dismantles them for further work. Finishes inside portions, which cannot be worked after assembling and smoothenes outer portions using plane, shaver (tools) etc. Applies glue in joints and re-assembles parts step by step, securing joints with dowels (wooden or bamboo pins), screws or nails as required. Fixes hinges, brackets etc. where necessary. Finishes outer surface by filling holes and cracks with putty and using different grades of sand papers to ensure better polish. Sharpens his own tools. May fix metal or other fittings on furniture body. May also polish and varnish furniture.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.0600

Body Builder, Automobile

Body Builder, Automobile constructs rigid body on auto-chassis with or without super-structure using wood and metal frames for passenger buses, goods trucks, lorries, vans, etc. Studies sketches or blue print regarding type of body to be built. Selects required sizes of timber pieces and collects finished metal parts. Cuts and shapes wood for body using hand or power tools. Builds frame work, lining, floors, ceiling and other wooden parts according to drawing and other specifications. Fits longitudinal runners, cross barriers, vertical posts etc. and tightens frame rigidly to chassis. Fits assembled or welded metal frame over wooden longitudinal runners and cross-members and assembles metal panel, roof covers, doors, etc., to wooden frame using nuts and bolts, etc., to wooden attachments such as fasteners, handles, hooks, lockers, etc., to frame or body as required. May fix interior fittings and repair or replace parts. May specialize in building any particular type of coach such as ambulance vans, passenger buses, army vehicles, goods lorries etc.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.0700

Coach Builder, Railway

Coach Builder, Railway constructs and repairs wooden bodies of railway coaches, using hand and power tools. Studies sketches or diagram for design of body to be constructed. Estimates and collects timber pieces of required quantity and sizes. Cuts and shapes wood to required

shape and sizes, using chisel, planer, saw and other hand tools or gets them cut over power driven machines according to drawing and other specifications. Fits and assembles various parts on chassis or frame of coach. Lays or fixes floor, sides, roof, wooden panels, board, etc. and secures them tightly to frame with screws, pop rivets, bolts and nuts. Replaces broken, damaged or worn out wooden parts for panels of railway coach with new ones and fixes fasteners, fittings, latches, glass on doors and windows etc. as required. May apply wax, French polish or shellac to wooden surface as protective coat of paint. May engrave or carve decorative or ornamental designs on wooden panels.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.0800

Body Builder, Other Vehicles

Body Builder, Other Vehicles assembles and repairs wooden parts of vehicle body on metal frame with specified seating and other arrangements and screws Masonite, wooden planks, hard boards, plywood etc., according to specifications for constructing bodies of vehicles not elsewhere classified such as cycle rickshaw, auto-rickshaw etc. (excluded are CART BUILDERS AND WHEEL WRIGHTS). Takes exact measurements of metal body for cutting required sizes of wooden parts. Cuts wooden plank, Masonite or hard board to required sizes using hand saw and drills holes with hand drill. Fits cut pieces of plank, or board over metal frame and secures them tightly with bolts and nuts, or screws as required. May fit

cushions, seats, arms rests and hoods to rickshaws.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.0900

Wood Marker

Wood Marker marks wood with pencil, scribe, chalk, etc. according to sample or drawing for further operations. Studies drawings and specifications or collects cutting list for marking. Selects required type and quality of wood and position sit on table or floor according to convenience. Measures wood and marks guide lines and reference points according to prescribed specifications using foot rule, scribe, callipers etc. Avoids wastage and ensures convenience of sawing, cutting etc. while marking. May saw lumber to facilitate marking.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.1000

Pattern Marker, Wood

Pattern Maker, Wood makes and repairs wooden patterns from drawings or samples for making moulds to cast metals using hand or power tools or both. Studies drawings or sample, calculates sizes and quantity of timber required. Selects right type of timber for making pattern. Saws, adzes and planes oversize pieces to required size and marks them with shrinkage allowance, using construction scale callipers, divider, pencil, scribe etc.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Drills holes and fixes dowels for assembling detachable parts and screws or nails other pieces permanently as necessary. Builds up undersized portions by nailing or screwing card board, plywood, thin pieces of wood or by applying putty as required. Assembles completed pattern, checks measurements and rectifies defects if any. Fills superfluous holes with molten sealing wax or with any other filling. Smoothens surface by filling or with sand paper for better finish. Sharpens his own tools. May apply preservative coating of solution of shellac and spirit or any other water proof paint.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.1100

Cooper

Cooper; Tank or Barrel Maker makes or repairs wooden tanks, barrels etc., using hand or power tools or both for storing and transporting liquids such as spirits, beer, etc. Studies drawing or sample and selects required type of planks. Saws and planes staves (wooden strips) according to size and capacity of cask to be made. Makes suitable water tight joints along sides and at both ends of staves by power or hand tools. Assembles staves into tabular form along joints made. Prepares two rings of iron strip of required size by heating iron strip in furnace, bending it to circular shape by hammering and riveting both ends. Heats carefully one end of assembled staves by fire to make wood pliable. Hammers one hoop on to heated end till staves bend to shape. Repeats process at other end to fix other hoop. Prepares top and bottom lids by sawing,

planing and shaping wooden planks into form of circular disc. Seals one end of cask permanently by fixing lid in grooves. Applies lacquer to joints to prevent leakage and polishes casks with wood polish. Repairs defective casks by replacing broken staves and hoops and seaming leaking joints. Sharpens his own tools.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.1200

Wood Carver, Hand

Wood Carver, Hand carves floral and artistic designs on wooden surfaces for decorative purposes using fine chisels and hand tools. Studies sketches and dimensions of ornamental designs to be carved. Finishes and smoothens required portion of wood surface, visualises finished product and transfers design on wood surface by tracing over drawing and carbon paper with pencil or stylers. Clamps furniture part or wood piece in vice and roughs out design by cutting along marked lines on wood using chisels and mallet. Selects carving chisels, gravers, gauges, files etc. and determines sequence of their use according to intricacy of design. Cuts, trims or touches up roughed out design to desired finish using hand tools. Taps stippling tool with mallet to stipple design (dotted work). Verifies dimensions of carving with foot rule and dividers and makes modifications if necessary. Makes holes to provide for inlay work, if necessary, and smoothens carved designs by rubbing with sand papers of different grades. May polish finished article. May draw full size design from sample or imagination for tracing on

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

wood. May design and sharpen carving tools.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.1300

Inlayer, Wood

Inlayer, Wood inlays metal, hardwood, ivory, precious stone and like material in furniture, board, door etc. for decorative purposes. Studies sample or design for inlaying. Draws or traces designs on articles to be decorated. Cuts depressions in markings and scoops wood from places where inlaying is to be done, using specially designed chisels. Selects material to be inlaid, marks it out to design, if any and cuts, shapes smoothens and sizes pieces as necessary with feet saw, planer, chisel sand paper, etc. Applies glue or specific adhesive and inserts inlaying pieces in respective depressions, ensuring to fill up gaps if any in scooped portions with saw dust, colour etc. to ensure permanent adherence of inlaid pieces in position. Files, planes and scrapes whole surface to smooth finish. May keep inlaid plank under hand operated nipping press for about twelve hours to secure inlaid pieces in position. May polish inlaid article to high finish. May sharpen inlaying tools.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.1400

Toy Maker, Wood

Toy Maker, Wood makes wooden toys of various shapes and sizes according to drawings or specifications using hand and power tools, fret saw machine etc. Studies drawing or sample and traces design on material or marks wooden block according to type of toy to be made. Cuts, shapes, turns and performs other operations according to tracing or marking using fret saw, hand saw, adz, chisels etc. as necessary. Frequently measuring it with callipers and rule to ensure conformity with required specifications. Drills holes where necessary and assembles different parts with nails, wires etc. or glues them together as specified. Smoothens finished toy or its components before assembling with different grades of sand paper and polishes it on completion. May paint or lacquer finished toy.

ISCO 08 Unit Group Details:

Code 7522

Title Cabinet Makers and Related Workers

7522.1500

Pith Worker, Wood

Pith Worker, Wood prepares models, figures and toys from pith (soft wood) using small hand tools. Soaks pith in water for required period to soften it. Washes, removes dirt and saline content from soaked pith, squeezes out excess water and dries it on platform. Powders dried pith in flour mill or otherwise and strains or sieves powder with hand strainer. Mixes pith powder with other ingredients like saw dust, powder of special type of bark, gum etc. in required proportions and mixes them thoroughly by tramping or kneading into dough. Spreads dough on table to form sheets of clay in required thickness. Cuts and puts sheets of clay required moulds, presses it to give shape to different forms and ties all parts of

mould according to shape with string. Fills in hollow spaces with waste paper for strength, removes mould after some time and dries figure in shade. Removes waste paper, gives final touch to form with fine chisel and smoothens it with sand paper. Applies colour, paint, wax and plastic coating etc. as necessary to make it waterproof and effect natural look. May make toys directly from soaked pith by pressing it in mould and shaping with small hand tools. May make different components or limbs of toys separately and then join them with twine or fine wire.

ISCO 08 Unit Group Details:

Code 7522
Title Cabinet Makers and Related Workers

7522.1600

Picture Frame Maker

Picture Frame Maker makes picture or photo frames from soft wood by sawing, planing, shaping etc. using power and hand tools. Cuts wooden planks or slides into long thin strips with power or hand saw and planes, shapes and sizes them to required thickness, form etc. using power and hand tools according to frame design. Marks frame strip to suit length and width of picture or photo to be framed, places it in mitre box (sawing jig) and cuts it according to markings at 45 degrees angle. Planes rebate (groove) on back side of cut strips with side planer and determines location, size and angle of nail holes to be drilled. Drills partial holes in one end of each piece, applies glue at mitered ends and assembles frame together by holding sized pieces in vice and driving nails through drilled holes. Smoothens frame to required finish by rubbing with sand paper. May polish

frame. May set leather, velvet or other material in frame. May set glass, hard board etc. and mount picture in frame.

ISCO 08 Unit Group Details:

Code 7522
Title Cabinet Makers and Related Workers

7522.1800

Sports Goods Maker, Wood

Sports Goods Maker, Wood makes sports goods such as tennis rackets, cricket bats, hockey sticks, wickets and such other sports accessories from special type of wood using power and hand tools. Selects wood according to requirements such as ash wood, willow wood, mulberry wood etc. and marks it. Shapes stock to specified size and dimensions by sawing, planing, carving, turning, etc. as necessary and bends it to required shape by steaming, softening and pressing. Cuts plies to size, files and fixes them and puts them in frame by screwing for treating and pressing, if engaged in making tennis or badminton rackets. Assembles component parts of article by wedging, bonding, clamping, nailing or screwing them together. Aligns and balances it, smoothens and covers surface of product and attaches fixtures such as strings, ferrules, grips etc. May varnish or paint finished articles and repair damaged equipment.

ISCO 08 Unit Group Details:

Code 7522
Title Cabinet Makers and Related Workers

7522.1900

Wood Lacquerer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Wood Lacquerer lacquers and polishes small wooden articles such as toys, artistic material, etc. on wood working lathe by applying and spreading lacquer (coating) on them and then polishing them to required finish. Fixes toy concentrically between centres or otherwise in lathe and rotates it either by power or manually with one hand using bow according to type of lathe used. Marks portions of article to suit colour design. Presses lacquer sticks of respective colours as per colour design on rotating surface of article and spreads it evenly on its body with palm or date leaves according to markings. Rubs lacquered article while in motion with polishing cloth, felt etc. and polishes it to high finish. May prepare coloured lac by mixing and boiling pure lac and coloured powder with water. May do wood turning.

ISCO 08 Unit Group Details:

Code 7522
Title Cabinet Makers and Related Workers

7522.2000 Wood Polisher

Wood Polisher cleans, smoothens and polishes furniture and other manufactured wooden articles to required shade and finish using sand paper, filler, polishing compound, etc. Cleans furniture piece or article to be polished with chemical or sand paper. Fills joints, knots holes etc. with putty or plaster and finishes surface by filing, scraping and rubbing with sand paper. Prepares ground (base) by applying filler or staining (coating with special coloured material) as required and refinishes surface with sand paper. Applies polish on finished surface using soft cloth or cotton and rubs it with fine sand paper, soft cloth or polishing

leather to secure desired gloss and finish. Ensures uniform finish everywhere of furniture or article polished. May repeat process number of times to ensure desired finish. May use wood pillar or chalk powder along with French polish for polishing costly articles. May paint cane articles with hand brush. May prepare his own polishing material.

ISCO 08 Unit Group Details:

Code 7522
Title Cabinet Makers and Related Workers

7522.2100 Paper Board Maker

Paper Board Makers, Other perform various tasks connected with paper board making such as coating paper board with wax, making water proof paper board, card board, for use as parts of vehicle, fittings and fixtures etc.

ISCO 08 Unit Group Details:

Code 7522
Title Cabinet Makers and Related Workers

7522.9900 Cabinet Makers and Related Workers, Other

Cabinet Makers and Related Workers, Other includes all other workers in carpentry joinery, knot plugging, cabinet making etc. not elsewhere classified such as those engaged in making walking sticks, pencils, pen holders etc.

ISCO 08 Unit Group Details:

Code 7522

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Cabinet Makers and Related Workers

Family 7523 Wood Working Machine Tool Setters and Operators

Woodworking Machine Tool Setters and Operators set-up or operate and monitor automatic or semi-automatic woodworking machines, such as precision sawing, shaping, planning, boring, turning and woodcarving machines to fabricate or repair wooden parts for furniture, fixtures and other wooden products.

7523.0100 Wood Machinist, General

Wood Machinist, General sets and operates different types of wood working machines for turning, planing, shaping, grooving, jointing etc. of wood according to drawings or required specifications. Studies drawings or sample or product desired. Selects appropriate cutting tools or cutters and fits them to cutter head. Fixes cutter head in machine and adjusts guides and machine table to suit operations. Starts machine, switches on levers and feeds trial piece of wood into machine. Checks specimen with drawing or sample, Re-adjusts position of tools or machine set up if required and operates machine to plane, mould, shape and process wood stock to requirements. Cleans and oils machine. May sharpen tools in grinding machine. Is designated as UNIVERSAL WOOD WORKING MACHINE OPERATOR if engaged in setting and operating universal wood working machine.

ISCO 08 Unit Group Details: Code 7523

Title Wood Working Machine Setters and Setter Operators

7523.0200 Wood Turner, Machine

Wood Turner, Machine sets and operates power driven wood turning lathe to make circular and round wooden objects according to specifications. Studies appropriate tools and mounts them on cutter head. Fixes cutter head in machine and adjusts guides. Mounts required size of wooden stock on machine and aligns it concentrically in position. Starts machine and sets speed. Sets and holds tip of tool against desired portion of rotating wood to be processed. Fashions wood according to specifications or sample using different cutting tools, checking its size and shape periodically with measuring instruments. Finishes processed object by smoothening surface with sand paper. Cleans and oils machine. May sharpen tools. May operate other wood working machines.

ISCO 08 Unit Group Details:

Code 7523
Title Wood Working Machine Setters and Setter Operators

7523.0300 Wood, Turner Hand

Wood Turner, Hand turns wood into desired shape by manually operating improvised lathes for making rolling pins, legs of beds, chairs, tables etc. Studies drawings and specifications. Selects suitable piece of wood of appropriate quality and fits it into rotating spindle of improvised lathe. Directs helper to ply attached hand wheel to rotate spindle. Selects required type of hand tool, holes it in position against rotating wood and fashions wood to required specifications,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

smoothens object with sand paper to finish product. May cut and saw timber using hand saw.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters and Setter Operators

7523.0400

Shaper Wood

Shaper, Wood sets and operates shaping machine for cutting grooves, angles, designs or irregular shape, etc. on wooden surface. Studies drawing or samples. Selects appropriate cutting blades and fits them securely to rotating spindle of machine. Adjusts machine table to produce required shaping operations and to hold wooden stock in position during processing. Starts machine, feeds suitable pieces of wood and ensures that they are properly guided during cutting operation to obtain required shape. Removes completed pieces from machine and checks them for accuracy with templates and scales. Cleans and oils machine. May grind cutters.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters and Setter Operators

7523.0500

Router, Wood

Router, Wood; Routing Machine Operator, Wood sets and operates routing machine for making various designs on wood surface by rotary cutter. Clamps and tightens selected tool bit in machine chuck, inserts guide pin and sets table stops. Fastens wood stock securely to

table mounted on roller bearings, moves it under routing tool to cut designs according to drawings or sketches and regulates depth of cut by pedal operation as required. Checks accuracy of cutting using measuring instruments and resets machine if necessary to ensure accuracy. Releases pedal to withdraw wood stock from cutting tools and removes stock. May draw and trace outline of design on wood. May operate machine equipped with automatic device for varying depth of cut. May grind cutters and clean and oil machine.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters and Setter Operators

7523.0600

Planer, Wood

Planer, Wood sets and operates single or multiple cutting head machine to plane surface or reduce thickness of wooden stock to required specifications. Selects appropriate cutting blades and fits them into cutter head using hand tools. Turns hand wheel to adjust table for depth of cut and suit thickness of implanted stock. Adjusts pressure bar to hold stock firmly against cutting blades. Starts machine and inserts one end of stock between feeding rolls and guides it through machine. Measures planed stock and resets machine. Turns stock over and re-runs it through machine to surface other side and reduce it to desired thickness. Replaces dull or broken blades and cleans and oils machine. May sharpen and grind cutting tools. May operate other wood planing and cutting machines.

ISCO 08 Unit Group Details:

Code 7523

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Wood Working Machine Setters
and Setter Operators

7523.0700

Four Cutter

Four Cutter, Wood sets and operates machines for cutting grooves and moulding wood stock for making casing and capping for electrical fittings and such other articles. Sets and fits cutters to vertical and horizontal spindles of machines, adjusting their positions as required. Adjusts machine table to hold wood stock securely in position at required height. Starts machine to rotate cutters at high speed. Feeds trial piece along table guides into machine cutters to cut grooves and shape edges and sides. Checks finished product with drawings or sketches and makes adjustments to cutters if necessary. Feeds wood stock and continues operation. Changes cutters when necessary. Cleans and oils machines. May sharpen tools on grinding machine. May operate other wood cutting machines.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.0800

Wood Sawyer, Hand

Woods Sawyer, Hand operates hand saw to cut logs in to planks or wooden boards of required sizes. Marks lines on the log or timber for cutting it to required sizes Fixes wooden props or supports at convenient height to place log of timber for sawing and places it securely over supports at inclined position. Selects saw of appropriate size and with assistance of helper cuts or saws log or timber along

marked line from one end. Inserts wooden or metal wedges between cut slit along marked line where required to prevent panning of saw. Sharpens saw teeth with file when necessary. May work, singly to size planks to required dimensions using ripsaw.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.0900

Moulder, Wood

Moulder, Wood; Moulding Machine Operator, Wood sets and operates moulding machine for cutting sides of wooden boards, frames etc. to required shape and making specific grooves and profiles with form cutters. Studies drawing or sample to determine shape to be cut. Selects suitable cutting blades and fixes them to rotating spindles of machine. Sets blades in required position or angle and fastens them securely using spanners. Fits different types of cutters to different spindles of machine depending on type of cutting required, such as for grooves, profiles, etc. Adjusts machine table to desired position or height for size of cut to be made and sets guides to hold stock in position. Starts machine and cuts triple pairs. Checks trial piece and readjusts machine if required. Shoves wood stock between feed rolls which automatically carry pieces through machine for machining and continues operation. Cleans and oils machine. May grind knives to correct profile. May operate other wood cutting machines. May design jigs and fixtures for repetitive or specific machining operation.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.1000

Mortiser Operator

Mortiser Operator sets and operates mortising machine for cutting slots of prescribed dimension in wooden frames for making joints. Selects and fits appropriate cutting tools to machine spindle. Sets machine table and guides setters to hold stock in position. Collects wood stock and checks marking for dimension of slot to be cut on it. Places wood stock below cutting tool on machine table. Lowers cutting tool over marked area on wooden stock and sets its position for slotting. Starts machine and presses down tool to cut slots of required dimensions. Checks dimensions and removes processed wood on completion. May clean and oil machine. May grind and sharpen cutting tools. May operate other wood cutting machines.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.1100

Tenoning Machine Operator

Tenoning Machine Operator sets and operates tenoning machine to make tenons in wooden frames according to specifications for making joints. Selects and fits appropriate cutting blades securely on rotating spindle of machine. Adjusts cutters and machine table to suit required size of tenons to be cut. Feeds wood stock between guide plates on table to hold it firmly during operation. Starts machine, pushes wood stock against

cutters to obtain single or double tenoning (cutting one or both sides of wood stock) according to type of machine operated and adjusts cutters to obtain tenons of prescribed dimensions. Cleans and oils machine. May grind and sharpen cutting blades. May operate tenoning machine with scribing head, and other wood working machines.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.1200

Jointer Machine Operator

Jointer Machine Operator sets and operates specially designed machine for making plough and tang and other water tight joints. Studies drawings. Fits cutter knives in cutter head of machine and tightens set screws with wrench to secure them in position. Collects wood stock and marks cutting line with pencil. Places fence to guide stock at specified angle to cutting knives and places stock on edge against fence on machine table. Starts machine and slides stock over rotating cutting knives, using fence as guide. Checks cuts on stock against blue prints or sketches using mitre gauges, squares etc. and makes necessary adjustments. Feeds stock across cutting knives and continues operation. Turns stock and machines other edge frequently checking its width with callipers or gauges to ensure accuracy of fitting. May smoothen and reduce wood stock to required thickness. May replace broken or dull cutting tools. May grind and sharpen cutting blades. May clean and oil machine. May operate other wood cutting machines.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.1300

Driller Wood

Driller Wood; Boring Machine Operator, Wood sets and operates wood boring machine for boring holes of required dimensions in wooden frames and articles. Selects drill bit of appropriate size for boring hole and fits it to spindle of machine using chuck, collet or sleeve as necessary. Measures and marks stock for boring or follows markings already made. Clamps stock to machine table and centres drill bit over or in front of marks indicating location of hole. Adjusts spindle stop to regulate depth of hole and starts machine. Moves table upward or forward and bores required hole in stock. Withdraws bit from stock and repeats process. Changes drill bits to bore holes of different dimensions. Cleans and oils machine. May be designated as HORIZONTAL or VERTICAL BORER WOOD according to type of boring machine operated.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.1400

Dowell Machine Operator

Dowel Machine Operator, Wood; Rounding Machine Operator, Wood sets and operates dowel machine for making round wooden pins of various dimensions for securing joints. Selects and fits cutter blades of required size in cutter head of machine. Sets gap between blades equal to diameter of dowel, using callipers and

gauges and adjusts stock guides and feed and take off rollers to size and finish stock to required specifications. Starts machine, places stock on guides and pushes on end of sample between feed rollers. Checks size of rounded stock with measuring instruments. Makes adjustments to machine if necessary, feeds stock and continues operation. May install cutter heads to cut spirals or longitudinal grooves or both in addition to rounding stock.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.1500

Wood Wool Machine Operator

Wood Wool Machine Operator sets and operates wood wool machine for reducing soft wooden stock into long thin fibres commonly used as packing material. Selects appropriate cutting tools and mounts them on cutter head. Fixes cutter head in machine and adjusts wood stock to tool post. Starts machine to move wood piece to and fro against cutters and moves cam by hand to control speed of tool post to cut fibres of desired thinness from wood stock. Checks fineness of fibres and adjusts operation as required. May clean and oil machine. May sharpen or replace dull blades. May operate other wood working machines.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters
and Setter Operators

7523.1600

Wood Carver, Machine

Wood Carver, Machine sets and operates automatic spindle carving machine to carve ornamental and artistic designs on wood. Studies full-size designs and specifications, determines nature of carving to be done and marks reference points on wood block, if necessary. Selects appropriate cutter and fits it to machine spindle. Fixes and adjusts wood on machine bed and starts machine. Lowers spindle, makes different cuts and manipulates wood piece against cutter to produce desired design. Changes cutter as necessary, regulates depth of cut by pedals, checks accuracy of cutting with measuring instruments, makes necessary adjustments if necessary and completes design. Ensures that work proceeds correctly and removes final product from machine. May carve design on separate piece of wood and glue or nail it on main article. May make jigs for repetitive work. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 7523
Title Wood Working Machine Setters and Setter Operators

7523.1700

Fret Saw Machine Operator

Fret Saw Machine Operator; Jig Saw Machine Operator sets and operates fret saw machine with their reciprocating blade to cut wooden pieces, plywood etc. along marked line. Selects or receives material, determines pattern of cut and draws or traces design on it. Drills holes in material at appropriate places to pass saw blade particularly for internal cutting; fixes saw blade in machine with teeth downwards and operates foot pedal to start reciprocating movement of saw. Manipulates movement of material and

cuts it along marked lines. Removes saw from machine, passes it through drilled hole, resets saw and continues operation for internal cutting. Smoothens edges after cutting with file or sand paper. May set saw number of times depending on design and cuts required.

ISCO 08 Unit Group Details:

Code 7523
Title Wood Working Machine Setters and Setter Operators

7523.1800

Sander Operator

Sander Operator sets and operates sanding machine for smoothening and finishing wooden surfaces with sand paper. Selects grade of sand paper according to degree or smoothness and finish required and fits it on sanding drum. Adjusts gap between feed belt and roller by observing index needle and starts machine. Feeds ply-wood or article to be polished by feed belt against revolving sand paper to get rubbed and smoothened. Switches on exhaust fan of machine to collect dust during operation and uses goggles and rubber gloves for personal safety. Changes grade of sand paper till required smoothness is achieved. May smoothen wooden articles on simpler machine by fixing them on machine platform not provided with automatic feed arrangement.

ISCO 08 Unit Group Details:

Code 7523
Title Wood Working Machine Setters and Setter Operators

7523.9900

Wood Working Machine Setters and Setter Operators, Others

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Wood Product Machine Operators, Other include those who operate and monitor automatic and semiautomatic woodworking machines which perform repetitive work and are always set up by woodworking machine setters not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7523

Title Wood Working Machine Setters and Setter Operators

Group 753

Garment and Related Trades Workers

Garment and related trades workers fit, alter and repair tailored clothing; design, and make textile and fur garments, leather or fur products; repair, renovate and decorate garments, gloves and other products of textile; create patterns for garments; install, repair and replace upholstery of furniture, fixtures, orthopaedic appliances and furnishings of automobiles; trim, scrape, tan, buff and dye animal hides, pelts or skins; modify and repair footwear and leather articles.

Occupations in this Group are classified into the following Families:

7531 Tailors, Dress Makers, Furriers and Hatters
7532 Garment and Related Pattern Makers and Cutters
7533 Sewing, Embroiderers and Related Workers
7534 Upholsterers and Related Workers
7535 Pelt Dressers, Tanners and Fellmongers

7536 Shoemakers and Related Workers

Family 7531

Tailors, Dress Makers, Furriers and Hatters

Tailors, dressmakers, furriers and hatters fabricate, fit, alter and repair tailored or hand-made clothing; They produce made-to-measure clothing such as suits, overcoats, and dresses from textile fabrics, light leather, fur and other material, or make hats or wigs according to customer's and clothing manufacturer's specifications.

7531.0100

Tailor, General

Tailor, General makes ladies and gents' garments and children's clothes by stitching various components together according to pattern, by hand or sewing machine. Measures customers for size with inch-tape and record measurements for making garments. Cuts material according to pattern and size and assembles garment parts by sewing. Fits stitched garment on customer, marks alterations to be made and finishes garments. May prepare new designs and Masden Lays and supervise sewing, stitching, button holing, etc. delegated to other workers. May also repair and renovate garments.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.0101

Sampling Tailor

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Sampling tailor is responsible for developing garment sample as per buyer's specifications in the apparel industry. A sampling tailor should be able to perform basic fabric cutting operations and stitch garments of various designs with different necklines, sleeves, collar etc. as per the quality standards. This job requires the individual to have thorough knowledge of measurements, garment styles, sampling and apparel production processes and should be able to sew garments with different materials and trims.

Qualification Pack Details:

QP NOS Reference	AMH/A0701
QP NOS Name	Sampling Tailor
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code	7531
Title	Tailors, Dress Makers, Furriers and Hatters

7531.0200

Dress Maker/Ladies Dress Maker

Dress Maker stitches together parts of women's garments such as dresses, blouses, jumpers, brassieres, etc., according to instructions of Master Cutter. Stitches together parts by hand and machine. Inserts inner material, makes embroidery work, button-holes, etc., and attaches lining, lace, button, etc. Carries out alteration as directed. May press garments and supervise work of Sewer, Hand.

ISCO 08 Unit Group Details:

Code	7531
Title	Tailors, Dress Makers, Furriers and Hatters

7531.0300

Coat Maker

Coat Maker stitches together, by hand and machine, parts of coat, shervani and other body garments according to instructions of Master Cutter. Joins parts together by basting ensuring that they are properly aligned. Stitches them together by hand and machine. Inserts inner material and attaches lining as required. Carries out alteration according to markings. Makes button-holes, stitches buttons and performs other finishing tasks. May press garment and supervise basting, filling, button holding, button stitching, etc., by Sewer, Hand.

ISCO 08 Unit Group Details:

Code	7531
Title	Tailors, Dress Makers, Furriers and Hatters

7531.0400

Trouser Maker

Trouser Maker: Pant Maker stitches together by hand and machine parts of trousers, breeches and other leg wear according to instructions of Master Cutter. Joins parts together by basting, ensuring that they are properly aligned. Stitches them together by hand and machine. Inserts inner material and attaches lining as required. Carries out alterations according to markings. Makes buttonholes, stitches button and performs other finishing tasks, or supervises performance of these tasks by Sewer, Hand.

ISCO 08 Unit Group Details:

Code	7531
Title	Tailors, Dress Makers, Furriers and Hatters

7531.0500

Shirt Maker

Shirt Maker stitches together parts of shirts, under vests, pyjamas etc., according to instructions of Master Cutter. Stitches collars and cuffs. Makes button holes and stitches buttons and performs other finishing tasks. May press garments and supervise work of Sewer, Hand.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.0700

Hat Maker, General

Hat Maker, General makes various kinds of hats by marking, cutting, sewing and joining components and finishing them by trimming and decorating. Prepares own design or copies and adapts existing designs. Marks and cuts material according to pattern or own judgement. Smooths, wires and shapes hat parts and sews them together. Adds trimmings and decorates hat as required. May make and alter hats to individual requirements.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.0900

Cap Maker

Cap Maker makes various kinds of caps from cloth, felt, fur, velvet and other fabric by marking, cutting, joining and sewing and finishing them by trimming and decorating.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.1000

Wig Maker

Wig Maker makes wigs according to specifications, fastening strands of hair to cloth base. Studies requirements; cuts paper pattern to shape and size according to customer's measurements; fits and pleats pattern on to head block and fixes pleats with silk tapes; cuts silk and silk gauze to shape, fits over paper pattern and sews to silk tapes; trims and binds edges; selects hair to suit requirement and knots them to wig mount on head block by inserting hook-pointed needle in gauze to catch, twist and pull hair through; makes partings, combs and oils wig, curls hair by water-waving or with paper spills; places wig (on head block) in open for drying and setting. For theatrical wigs, makes stock size mounts which can be adjusted as required to suit wearer. May prepare and dress wigs for dolls.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.1200

Tailor, Fur

Tailor, Fur performs all or several of more difficult tasks in manufacture, alteration, renovation and repair of garments and other articles of fur. Prepares patterns for cutting out and finishing fur articles. Grades, matches, sorts and prepares furs to be used. Cuts fur according to pattern.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Sews pieces together, usually by machine. Stretches and trims sewn parts to conform to pattern. Finishes article by machine and hand sewing. Presses, repairs, alters and renovates fur articles. Estimates cost of new articles and of alteration, renovation and repair of used articles and charges customer accordingly. May work as paid employee or on own account.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.1300

Pattern Maker, Fur

Pattern Maker, Fur prepares patterns and full-size canvas models of garments and other articles of fur to guide Cutters and Finishers. Draws pattern on paper in accordance with garment design or customer's measurements. Makes canvas model of garment according to pattern. Checks patterns and model for accuracy and makes necessary alterations. Passes them to garment Cutters or Finishers. Examines completed garment for defects. Cuts patterns for fur trimmings, accessories and other fur articles and for alteration of fur articles. May cut patterns for fancy leather goods.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.1400

Grader and Matcher, Fur

Grader and Matcher, Fur examines furs and sorts them prior to cutting and making up into garments or other articles.

Compares furs visually and sorts them according to quality. Selects furs that match in colour, thickness and length of hair and makes them into bundles ready for Cutter. May specialize in one or more types of fur.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.1500

Cutter, Fur

Cutter, Fur cuts fur according to pattern for making or repairing garments or other articles. Selects required number of furs. Arranges fur on pattern outlines, ensuring that parts to be joined together match in quality and colour. Cuts furs to required size and shape with hand knife. May also perform some or all duties of Grader and Matcher, Fur.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.1600

Nailor, Fur

Nailor, Fur stretches and trims dressed furs to conform to pattern outline of garment or other articles. Draws outline of pattern on work table. Dampens skin side of fur with water. Places fur, skin side up, on table, stretches it to cover outline and nails it in position. Allows fur to dry in stretched position and removes nails. Draws outline of paper pattern on skin side of fur and trims fur along outline with knife.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 7531

Title Tailors, Dress Makers, Furriers and Hatters

7531.9900

Tailors, Dress Makers, Furriers and Hatters, Other

Fur Tailors and Related Workers, Other include all other fur tailors and related workers such as those engaged in beating, dyeing and trimming hair or fur; assisting in cutting furs for garment manufacture, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7531

Title Tailors,
Dress Makers, Furriers and Hatters

Family 7532

Garment and Related Pattern Makers and Cutters

Textile, leather and related patternmakers and cutters create precision master patterns for production of garments, other textile, and leather or fur products. They mark, cut, shape and trim textile, light leather and other materials according to blueprints or specifications in the manufacture of garments, hats and caps, gloves and miscellaneous products.

7532.0100

Designer (Garment)

Designer; Pattern Maker (Garments) develops, designs and makes pattern for new styles of men's, women's and children's garments. Studies existing styles, develops new ideas and draws out

full scale drawing of garments on paper. Marks and cuts out paper patterns of different parts of garments. Gets cloth cut according to paper patterns and gets sample garment stitched as required. Tries garment on model and makes changes in pattern, if necessary. May make specifications and supervise production.

ISCO 08 Unit Group Details:

Code 7532

Title Garment and Related Pattern
Makers and Cutters

7532.0200

Designer, Leather Articles

Designer, Leather Articles develops designs and cuts patterns for small leather articles. Studies designs of leather products from catalogues. Considers purpose, market trend, preferences of potential users, technical specifications and develops improvements or new designs keeping economical aspects and method of production in view. Prepares sketches showing style, shape, size and similar characteristics of product, and submits them to management or customer for approval. Alters designs if necessary. May make technical drawings, models, and prototype patterns. May specialize in designing particular type of article such as gloves, hand bags, etc.

ISCO 08 Unit Group Details:

Code 7532

Title Garment and Related Pattern
Makers and Cutters

7532.0300

Case Finisher (Leather Product)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Case Finisher (Leather Prod.) assembles and finishes suitcases and radio, jewellery, and instrument cases, and lines or covers them with material, such as leather, velvet, or satin, performing any combination of following tasks: Inserts hinge wings into slots in top and bottom sections of case and secures them in grooves, using pinch pliers, or rivets, nails, or screws hinges in position. Opens case and verifies lid angle, using table gauge. Cuts specified material to size, using pattern and shears, or obtains pre-cut fabric. Brushes glue on area to be covered. Positions material on inner or outer surfaces of case and smoothens out wrinkles, using fingers. Trims excess fabric from joints, seams, and edges, using knife. Glues or nails bracing blocks to case and covers blocks with material. Presses cushion or pad into upper and lower sections of case. Examines case for misalignment of edges, and opens and closes lid to test action of hinges and spring. Holds case over air nozzle and presses pedal to remove dust and lint. Packs cases in shipping cartons. May crimp lids to case or crimp bottoms to case frame, using pneumatic-powered crimper. May repair or replace hinges, linings, and springs.

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

7532.0500

Frame Maker, Cap

Frame Maker, Cap prepares cap frames for cap using metal pattern, hand scissors and jute canvas. Marks paper to required size and cuts it using hand scissors. Pastes paper on metal pattern with thick paste. Cuts jute canvas as per specifications

using measuring tape and hand scissors. Applies thick paste to jute canvas. Fixes pasted canvas to metal pattern. Allows canvas to dry. Cuts round edges of canvas and separates canvas from metal pattern using sharp knife. May give finishing touches by putting plastic inner cover, fixing eyelets, etc.

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

7532.0600

Master Cutter (Garment)

Master Cutter (Garments) measures customers and cuts parts of garment from cloth for making garment of required size and style. Measures customers for size with inch-tape and records measurements. Cuts out paper patterns with given measurements. Places patterns on cloth and marks around with pencil. Cuts various parts along marked lines and gives them for stitching. Supervises stitching and making of garments. Tries garment, when prepared, on customer and marks with chalk any alterations to be made. Supervises making and finishing work and finally fits garment on customer.

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

7532.0700

Cutter, Hand (Textile Product)

Cutter, Hand (Textile Products) cuts garment parts and other articles to be sewed together from cloth, canvas, etc., using scissors. Spreads single or multiple

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

layers of cloth, fabric or other material to be cut on table or board. Places pattern on material in such position as to have least wastage. Marks outline on material with chalk. Cuts along outline marked in chalk or around edge of pattern using scissors.

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

7532.0900 Cutter, Machine (Textile Product)

Cutter, Machine (Textile Products) cuts parts of garments, bags and other articles from single or multiple layers of cloth, knitted or other fabric, hessian, canvas, etc., using electrically driven cutting machine. Places pattern in such a position over material as to have least wastage. Cuts around edge of pattern or along outlines marked in chalk on material.

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

7532.0901

Garment Cutter (CAM)

Garment cutter should be able to take the fabric from stock, load the fabric and program the CAM to run a particular design. A garment cutter also removes the cut pieces off the conveyer belt and ensures cutting is done as per product requirements.

Qualification Pack Details:

QP NOS Reference AMH/Q1501
QP NOS Name Garment Cutter
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

7532.0902

Advance Pattern Maker, Garment (CAD/CAM)

Advance Pattern Maker (CAD/CAM) uses the CAD system to recreate the pattern design techniques by transferring ideas to the computer, digitizing and modifying patterns and also the use of CAM to get the patterns and lays cut out in the actual sizes.

Qualification Pack Details:

QP NOS Reference AMH/Q1101
QP NOS Name Advance Pattern Maker (CAD/CAM)
NSQF Level 6

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

7532.0903

Layer Man

Layer Man is pre-production job role. The key responsibility of a Layer Man is to inspect the fabric to identify the presence of any basic fabric faults, laying and cutting the fabric as per specified length before the fabric is passed on to the parts cutting stage.

Qualification Pack Details:

QP NOS Reference AMH/Q0201
QP NOS Name Layer Man
NSQF Level 3

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 7532

Title Garment and Related Pattern
Makers and Cutters

7532.1000

Cutter, Garment (Leather)

Cutter, Garment (Leather) cuts leather for manufacture of garments. Examines leather to ensure that it is cut in most suitable and economical way. Cuts leather according to pattern of garment parts by shears, scissors, hand knife, hand operated guillotine, power driven oscillating knives or by machine which presses shaped knives through leather. May specialize in one or more types of cutting and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7532

Title Garment and Related Pattern
Makers and Cutters

7532.1001

Cutter, Goods and Garments (Leather)

Cutter (Goods and Garments) lays out, marks, and cuts leather or non-leather material into parts for articles using cutting dies. The critical component of the role is to position leather/non-leather for cutting to ensure good number and quality of cut pieces.

Qualification Pack Details:

QP NOS Reference LSS/Q6103

QP NOS Name Cutter (Goods and
Garments)

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7532

Title Garment and Related Pattern
Makers and Cutters

7532.1100

Cutter, Gloves (Leather)

Cutter, Gloves (Leather) cuts leather for manufacture of gloves. Dampens and stretches leather to ascertain flexibility, location of flaws and most suitable and economical way of cutting. Cuts leather according to pattern of glove parts by shears, scissors, hand knife, hand operated guillotine, power-driven oscillating knives or by machine which presses shaped knives through leather. Trims edges of finished gloves. May specialize in one or more types of cutting and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7532

Title Garment and Related Pattern
Makers and Cutters

7532.1200

Button Hole Maker

Button-Hole Marker; Button-hole Marking Boy marks positions for button-holes on garments. Places required pattern on garment in correct position. Marks positions for button-holes with pencil or chalk on garments through holes in pattern. May also mark positions for stitching buttons.

ISCO 08 Unit Group Details:

Code 7532

Title Garment and Related Pattern
Makers and Cutters

7532.1300

Cutter Tent

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Cutter, Tent marks and cuts tent cloth according to specification. Studies design or specification and plans cut out of parts to avoid wastes. Marks outline of pattern with crayon or chalk and cuts material with scissors. May sew tent by machine or hand.

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

7532.9900

Garment and Related Pattern Makers and Cutters, Other

Textile, Leather and Related Pattern Makers and Cutters, Other include workers who make patterns and mark and cut textile, leather and other materials in the manufacture of garments, gloves and miscellaneous products not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7532
Title Garment and Related Pattern Makers and Cutters

Family 7533

Sewing, Embroiderers and Related Workers

Sewing, embroidery and related workers sew together, repair, renovate and decorate garments, gloves and other products of textile, fur, light leather and other materials and fabricate tents sails, awnings and tarpaulins. They work mainly by hand using a needle and thread but may perform some tasks using a sewing machine.

7533.0100

Sewer, Hand

Sewer, Hand; Stitcher Hand; Hemming Boy sews together by hands parts of textile, fur and leather garments, furnishing and other textile and fur products using needle and thread. May repair garments, stitch buttons and do decorative stitching. May be designated according to type of article or material stitched such as SEWER, HAND (Fur); SEWER, HAND(Leather); SEWER, HAND(Garments); etc.

ISCO 08 Unit Group Details:

Code 7533
Title Sewers, Embroiderers and Related Workers

7533.0201

Hand Embroiderer, General

Hand Embroiderer, General sews ornamental designs by hand over printed or stencilled patterns on cloth using needle and coloured thread. Fastens embroidery hoop or frame over area of cloth to be worked to keep cloth taut while being embroidered. Threads needle with proper kind and colour of thread, embroiders along or over lines of printed or stencilled design on cloth using knowledge of various types of stitches required.

Qualification Pack Details:

QP NOS Reference AMH/Q1001
QP NOS Name Hand Embroiderer
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7533
Title Sewers, Embroiderers and Related Workers

7533.0300

Hand Embroiderer, Zari/Hand Embroider, Traditional Crafts

Hand Embroiderer, Zari; Zari Worker; Zardozi Worker sews ornamental designs by hand over stamped or stencilled patterns on fabric, using special embroidery material (zari) such as kora, kangani, sadri, nakshi, beads, tikli, sitare, etc. Stitches 'baithan' (cloth which forms base) to string loops of 'Karchob' or 'adda' (embroidery frame), adjusts 'Karchob' so that 'baithan' is evenly taut on all sides. Stitches, cotton, wool or silk fabric to work on 'baithan' in frame. Stencil design to be embroidered on fabric. Cuts zari material into pieces of required size with scissors. Threads needle with yarn and stitches neatly 'zari' pieces and beads etc., of proper size, colour and kind over stencilled design on fabric to make required pattern. Removes embroidered fabric from frame. May trace designs on fabric.

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

7533.0600

Darner

Darner; Cloth Mender repairs defective or damaged portion of cloth or garment by hand using matching thread and needle. Spreads cloth or garment and checks it thoroughly to locate defects and damages. Selects or dyes thread to match colour and shade of cloth to be darned. Removes miswoven threads or knots by nippers. Re-weaves or darns missing threads by needle, using thread of required shade and colour. Trims ends

with scissors to make mended portion look uniform with pattern of cloth. May press darned cloth or garment with electric or ordinary iron.

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

7533.0700

Sewer, Tent (Hand)

Sewer, Tent (Hand); Tent Sewer (Hand) sews together by hand pieces of cloth or canvas to make tents. Lays pieces to be stitched back to back, places tape (niwar) between edges and temporarily stitches parts together leaving gaps for eyelets, loops and rope. Reshapes any portion not fitting properly and sews parts with final stitching. Stitches rope loops to bottom of tent. May stitch floral designs on tent, if desired.

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

7533.0800

Umbrella Maker

Umbrella Maker assembles complete umbrella by fixing various component parts such as collapsible metal frame, springs, and umbrella cloth, to stick. Uses jig to mark points on cane stick for cutting and fixing different fixtures. Uses saw to cut grooves of desired length. Affixes box cup to hold in closed position. Inserts metal runner into stick for holding ends of ribs together and top spring grooves cut in stick. Fixes 'U' shaped nail in stick near top to stop metal runner going beyond limit. Assembles metal notch into stick and

running metal wire through eyelets of ribs to keep ribs in secured position in notch. Fastens ribs to runner by wiring eyelets to runner. Fits other components such as leather washer, top cap and ferrule. Attaches handles by glueing to stick. Checks frame by opening and closing it to ensure its correct assembly. Is designated as TAKE WALLA if engaged in cutting umbrella cloth according to pattern and stitching or fixing to frame. May repair defective umbrella by replacing worn cloth or other component parts.

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

7533.0900

Umbrella Examiner

Umbrella Examiner examines finished umbrellas for proper assembly. Examines fitting to secure fastening and opens and closes umbrella to see that ribs and runners function smoothly. Gets defective parts replaces with new ones. May assemble and fit covers to umbrellas.

Qualification Pack Details:

QP NOS Reference

QP NOS Name

NSQF Level

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

7533.1000

Sail and Awning Maker

Sail and Awning Maker lays out thick cloth, canvas and like materials, fabricates

and assembles them into sails, awning (shamiana) and tarpaulins. Lays out full scale drawing on floor according to blue prints or sketches, using chalk. Cuts pattern from paper according to full scale drawing. Marks outline on material with crayon. Cuts material with shears or power cutter. Sews section of material together on power sewing machine. Installs grommets, metal fittings, and fasteners by machine or measures and marks off grommet holes, punches them and sews galvanized iron rings to edge of holes by hand. Splices, inserts and hems manila, wire rope or any other type of strong rope in edges to relieve strain. Secures rope or cable to finished article. Wraps and sews parts of rope or wire which are subject to chafing. Installs and adjusts completed product according to requirements. Stuffs padding material where necessary for protection. May be designated according to type of product made.

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

7533.1100

Tailor, Tent (Machine)

Tailor, Tent (Machine) sews or joins cloth pieces on machine to make tent. Assembles pre-cut pieces of tent cloth. Studies pattern of tent by examining each part and connecting them temporarily. Inserts proper size needle and cotton thread in machine. Overlaps adjacent segments and sews them together. Sews cord and tape and attaches rope at required places to strengthen tent. Makes holes in tent at appropriate places and stitches around them to support

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

bamboos. May cut tent cloth. May sew leather around stitched holes for strength.

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

7533.1200

Doll Maker

Doll Maker performs one or more hand or machine tasks in making of moulded or stuffed dolls or stuffed toys. Moulds doll parts from composition material by operating a press or stuffs previously sewn parts with cotton, excision or other material to give them shape; fastens legs and arms on to torso; affixes artificial eyes in head; secures head to shoulders by means of a shank collar so that head may be turned at will; dresses dolls by hand with under and outer garments, fastens them with hooks, buttons or ribbons. May be designated according to type of work performed.

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

7533.9900

Sewers, Embroiderers and Related Workers, Other

Sewers, Embroiderers and Related Workers, Other include all other sewers, embroiderers and related workers engaged in other types of sewing and embroidery work, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7533

Title Sewers, Embroiderers and Related Workers

Family 7534

Upholsterers and Related Workers

Upholsterers and related workers install, repair and replace upholstery of furniture, fixtures, orthopaedic appliances; seats, panels, convertible and vinyl tops and other furnishings of automobiles, railway coaches, aircraft, ships and similar items with fabric, leather, rexine or other upholstery material. They also make and repair cushions, quilts and mattresses.

7534.0100

Upholsterer, Furniture

Upholsterer; Furniture installs, repairs or replaces upholstery of furniture. Removes old upholstery. Stretches and tacks new webbing to frame. Fastens springs by nailing them to frame and tying them to each other with cord. Covers springs with binding material, places cotton, rubber composition or other soft material over springs for padding, then tacks another layer of binding material to secure padding. Cuts covering fabric to size and tacks it in place. Tacks braid over end of covering material to conceal rough edges. May replace damaged springs, may do minor repairs to broken wooden parts of furniture and may sew covering material.

ISCO 08 Unit Group Details:

Code 7534

Title Upholsterers and Related Workers

7534.0200

Upholsterer, Orthopaedic Appliances

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Upholsterer, Orthopaedic Appliances installs, repairs and replaces upholstery of wheeled chairs, and makes and repairs other appliances for persons who are differently-abled (physical). Receives directions regarding type of upholstery or repair work to be done. Cuts and fits cotton, rubber foam moss, other padding materials, rexine, leather, etc. as required. Cuts and tacks hessian cloth, sets padding and fastens it in position. Measures and cuts covering material and tacks it in position. Trims excess materials and conceals edges by tacking leather or rexine tape. Replaces or repairs raw hide covering of artificial limbs. May renew upholstery of wheeled chairs and orthopaedic appliances. May repair shoes for deformed feet.

ISCO 08 Unit Group Details:

Code 7534

Title Upholsterers and Related Workers

7534.0300

Upholsterer, Vehicle

Upholsterer, Vehicle installs covering and cushioning for seats and for other furnishings on motor cars, carts, railway coaches, aircrafts and other types of vehicles. Takes measurements for furnishings or works from drawings. Cuts out materials. Makes and fits springs, padding and covering to seats. Fits lining to roof, doors and other parts. Cuts out and fixes materials for excluding sounds and draughts. May lay floor covering and make and fit vehicle blinds and fabric roofs.

ISCO 08 Unit Group Details:

Code 7534

Title Upholsterers and Related Workers

7534.0400

Cushion Maker

Cushion Maker; Cushion Stuffer; Cushion Mat Maker makes cushion covers and stuffs them with moss, hair, feather, coir jute or cotton. Cuts upholstery cloth according to size of cushion and sews pieces together, leaving opening at one end. Stuffs material into cushion and beats cushion with hand or stick to make packing even. Sews open end of cover and stitches piping along edges to preserved shape of cushion. May repair and rebuild cushions. May be designated as MATTRESS MAKER if engaged in making mattresses.

ISCO 08 Unit Group Details:

Code 7534

Title Upholsterers and Related Workers

7534.0500

Mattress Maker (Spring)

Mattress Maker (Spring) pads and covers innerspring assemblies to form mattress. Cuts cover material, using cutting knife and scissors, and spreads and staples burlap, leno, or sisal cloth to both sides of innerspring assemblies. Spreads padding over sides of innerspring and tends tape-edge machine that sews cover over padding. Tufts mattresses by hand or by tending machine to hold padding in place. Sews roll edges on mattress by hand or by machine.

ISCO 08 Unit Group Details:

Code 7534

Title Upholsterers and Related Workers

7534.9900

Upholsterers and Related Workers, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Upholsterer and Related Workers, Other include all other upholsterers and related workers such as those engaged in cutting out or completely making curtains, pelmets, wall and furniture covers, quilts and other soft furnishings, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7534

Title Upholsterers and Related Workers

Family 7535

Pelt Dressers, Tanners and Fellmongers

Pelt dressers, tanners and fellmongers trim, scrape, clean, tan, buff and dye animal hides, pelts or skins to produce leather stock and finished furs for making garments and other products.

7535.0100

Sorter, Hides and Skin

Sorter, Hides and Skins sorts and grades hides and skins before or after processing. Examines hides for weight, thickness and colour and checks quality by touch; inspects hides for defects, such as bran into groups; selects hides suitable for processing; examines and grades processed hides rejecting and returning hides for reprocessing where necessary. May be designated according to material sorted as CALF SKIN SORTER, PATENT LEATHER SORTER.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.0200

Flayer

Flayer removes skin or hide of slaughtered or dead animal using different types of knives by cutting skin from tail end to neck on abdomen side and releasing skin from body by pulling by hand. Positions carcass of slaughtered or dead animal by suspending hind legs to a beam with rope or iron hooks at convenient height or laying it with legs turned upward on ground or work bench necessary to assist flaying; selects suitable knife and cuts skin from tail end to neck on abdomen; cuts tissues and separates skin from body; releases skin from body by cutting tissues and pulling skin gently with hand avoiding damage to skin; sprinkles water frequently to soften flesh to release skin from body by cutting tissues and pulling skin gently with hand avoiding damage to skin and to avoid damage while cutting and pulling. May remove head and forelegs of animals before flaying. May dress meat for consumption. May tan skins. May work as one of a team and be designated according to particular operation performed.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.0300

Lime Pitman, Leather

Line Pitman, Leather; Lime Yard Jobber; Paddle Man Leather prepares lime solution in pits, tanks or vats and treats hides and skins by thoroughly soaking them in lime solution to soften hair for de-hairing. Fills pit or tank with required quantity of water; prepares lime solution

by mixing specified quantity of lime powder with water; pours lime solution in pit or tank containing water and stirs with stick for proper mixing of solution with water; collects salted skins and cleans them with water to remove salt and other foreign matter; dumps cleaned skins in lime tank to soak thoroughly (completely immersed in lime solution for a specified time); changes positions of skins or hides periodically in tank to ensure that all skins and hides are properly soaked in all parts; transfers periodically lime soaked skins from tank to tank containing different strengths of lime liquor to complete cycle of proper treatment of skin for further processing, removes lime treated stock from tank and stalks them separately, empties and cleans tank. May de-hair skin or hide. May tan leather.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.0400**De-hairer, Hand**

De-hairer, Hand removes hair from skin or hide soaked in lime water by hand, using blunt knife to prepare for further process of tanning. stretches wet hide over iron piece fixed in inclined position with hair side upward; scraps hair off hide using circular or two handled knife ensuring that skin is not damaged and all hairs are removed completely from skin; piles scraped hides. May remove superfluous flesh from skin.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.0500**Flesher, Hand**

Flesher, Hand removes superfluous flesh and fat from de-haired skin or hide using sharp curved hand knife for further processing. Collects de-haired skin or hide from central point for fleshing. Places de-haired skin, stretching it by hand on beam (a curved piece of wood) with flesh side turned upward; holds knife with both hands and moves it downwards at inclined angle on fleshing surface to remove flesh and fat from skin taking care not to damage skin; changes position of skin on beam frequently for fleshing skin completely; places fleshed skins at central point. May be designated as BEAMER, LEATHER if engaged in removing flesh from hide or skin soaked in bark or myrobalan liquor. May sharpen knife on stone or machine.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.0600**Delimer**

De-limer processes hides or skins treated with lime in fat-and-de-liming solution for required period to remove lime, reduce their swelling and make them flexible. Prepares de-liming solution in vat by mixing chemicals, acids and other de-liming materials in prescribed quantities in water; fills pit or tank with required amount of water and pours de-liming solution in tank; stirs solution and changes position of skin or hide in de-liming tank using wooden paddle; removes de-limed leather after prescribed period; rinses de-limed skin or hide in water thoroughly; hangs skins to ooze out excess water;

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

drains out used de-limed solution from tank; cleans tank with water and repeats process. May operate revolving drum for de liming skins and hides by filling drum with de-liming solution and dumping limed hide in drum.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.0700

Scudder, Hand

Scudder, Hand removes epidermis hair roots, pigment cells and lime salts from grain side of hide or skin, before tanning by hand, using double handled curved knife. Collects de-haired and fleshed skins or hides from central point for scudding. Places de-haired skin with grain side up on beam (a rounded board on which wet hides or skins are stretched to remove flesh and hair prior to tanning) stretching it by hand. Scrapes surface to remove hair roots, pigment cells and lime salts with double handled blunt knife. (scudding knife). Ensures that skin is not damaged or cut during process. Soaks scudded skin in water for a prescribed period; repeats process of scraping of left over hair and soaking in water till skin or hide is cleaned off hair roots, lime salts, etc.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.0900

Fluffer, Hand

Fluffer, Hand removes fluff from flesh side of skin by rubbing whole surface of skin

with burnt stone or brick. Spreads skin stretched over table with flesh side upwards; rubs entire surface applying pressure by hand with burnt stone or brick to remove fluff from skin till surface of leather becomes smooth and soft.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.1000

Staker, Hand

Staker, Hand softens leather end by placing it on blunt metal plate and by pulling it backwards and forwards over edge of stake. Conditions hides on previous day by keeping them in moist sawdust; inserts blunt metal plate (staking plate) over fixed rod; holds ends of skin or leather with both hands and rubs surface of leather vigorously back and forth over blunt blade to make it soft and pliable. May apply chemical solution to leather surface to make it soft preparatory to further process. May operate staking or glazing machine.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.1100

Bark Pitman (Tanning)

Bark Pitman (Tanning) prepares bark and myrobalan liquor and treats hides or skins in them for tanning. Mixes prescribed quantity of tanning bark or myrobalan powder with water to make liquor or solution; pours prepared solution into pit or vat containing water and agitates

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

mixture vigorously with paddle; tests mixture for specific gravity and adds materials to mixture to obtain solution of specified gravity; immerses hides or skins in bark pit or vat placing one above other for a specified period to allow hides or skins to soak in solution; changes positions of hides or skins periodically in pit to ensure that all are properly saturated with tanning solution; removes hides or skins from bark pit after a specified period; extracts sample piece of leather and boils it in water to test completeness of tanning and continues tanning if necessary. Stacks or hangs them in shade for drying. May retain hides to restore colour lost in bleaching, splitting or other processes. May be designated according to type of tanning solution used as BARK TANNER; CHESTNUT TANNER; CHROME-TANNING WHEETMAN; OAK TANNER.

ISCO 08 Unit Group Details:

Code 7535
Title Pelt Dressers, Tanners and Fellmongers

7535.1200 Drum Man (Tanning)

Drum Man; Drum Operator (Tanning) operates rotary drum containing tanning solution to convert hides and skins into leather, according to specifications. Weighs tanning agents, such as bark powder or chemicals, following tanning formula; loads agents and hides or skins into drum; turns valve to fill drum with water, and turns steam valve to heat water to specified temperature observing meters and gauzes; locks drum door and moves lever to rotate drum for specified period of time; removes drum door, replaces it with grating, and rotates drum to drain tanning solution through grating.

May boil sample of tanned hide or skin in water to determine thoroughness of tannings. May specialize in particular type of tanning and be designated accordingly.

ISCO 08 Unit Group Details:

Code 7535
Title Pelt Dressers, Tanners and Fellmongers

7535.1300 Leather, Currier

Leather Currier treats tanned leather with fats and oils, softens it by flexing, rolls it under pressure for converting into finished form. Scrapes hide with tool to expel moisture and scum left from tanning; applies grease, oil, soap or other compounds to hide by hand or machine; softens hide by stroking it with knife blade, flexing it over rigid blade or by rolling it under pressure in machine; rubs hair side of hide against itself to bring out grain; removes rough spots and blemishes from hides by hand scraping or by machine; polishes hide by hand or machine. May also dye and stain leather. May operate staking, buffing and glazing machine.

ISCO 08 Unit Group Details:

Code 7535
Title Pelt Dressers, Tanners and Fellmongers

7535.1400 Dyer, Leather

Dyer, Leather; Colourer, Hides and Skins prepares colour solutions, dyes and stains to match specified colour samples or according to formulae and applies or supervises their application to dressed leather. Weighs and mixes specified

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ingredients with water to prepare colouring solutions; pours colouring solution into tray or drum and adds oil (softening agent); pulls hide through tray until specified colour is obtained or places hides in drum and starts machine to tumble hides in solution for specified time; examines test piece of hide and bleach or further colouring if necessary to obtain desired effect; removes dyed leather; drains colour solution and washes drum and equipment. May be specifically designated as GLOVE DYER, VAT DYER, CHROME DYER, DRUM DYER.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.1500

Embosser, Leather

Embosser, Leather; Embosser-Press Man; Embossing-Press Operator operates machine to imprint designs on leather or leather articles, such as wallets, cushion and key cases. Selects specified embossing plate, bolts plate into chase, positions and secures chase into ram of machine; turns switch or steam valve to heat plate to specified temperature according to type of leather; pulls lever that lowers ram to impress designs on leather or article. May make bed for embossing plate, using card board and paper.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.1600

Seasoner, Leather

Seasoner, Leather seasons leather by applying chemical solution or oil evenly on surface by hand brush and allowing it to dry in open air. Mixes different seasoning chemical compounds such as nitro cellulose, lacquer, resin, oil etc. in prescribed proportions; spreads leather on table; coats seasoning solution over surface of leather evenly using hand brush; hangs leather (seasoned) in open air for drying. Is designated as SPRAYER LEATHER if uses spray gun to spray chemical solution on leather to give desired pigment or dye finish.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.1700

Pelt Dresser, General

Pelt Dresser, General prepares finished furs from raw pelts by de-flesing with knife, removing superfluous hair; treating and pickling pelts with chemicals and solutions; simulating hairs with dyes, stretching and softening finished pelts etc. treats flesh side of skin with salt or other chemicals for preserving or tanning; scrapes particles from raw pelt with knife or stretches skin over fixed steel blade and works it back and forth, taking great care not to damage hair roots embedded in skin; tacks skin, fur side up, over beam, removes loose hair, and flattens fur by stroking it with double handled, blunt edged knife, occasionally dusting fur with powder to make hair more visible; evens length of fur over entire skin with thin, keen-edged knife, scissors or shears; treats skin with necessary chemicals and solution for preservation of hair on pelt; applies dyes to pelt with feather or brush to improve appearance of fur or to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

simulate hair of another fur-bearing animal; smoothens and stretches dressed pelts and dries them in shade. May be designated as PELT GRADER; PELT DYER; PELT FINISHER, if engaged in grading and dyeing or finishing pelts only.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.1800

Pelt Grader

Pelt Grader sorts fur or wool-bearing pelts before or immediately after they have been dressed. Compares untreated pelts visually and sorts them according to type, quality, size, colour and markings. Sorts pelts after they have been dressed, dyed or otherwise treated. May be designated according to nature of work, such as GRADER FUR; MATCHER FUR; etc.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.1900

Pelt Flesher

Pelt Flesher removes particles of flesh and fat from fur or wool-bearing pelts prior to curing or other processing. Scrapes particles from pelt with knife or stretches skin over fixed steel blade and works it back and forth, taking great care not to damage hair roots embedded in skin. May remove particles by use of power-operated revolving knife. May reduce thickness of hides by paring with machine or hand knife.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.2000

Pelt Plucker and Trimmer

Pelt Plucker and Trimmer removes long coarse hair from fur pelts and trims underlying hair to even length. Tacks skin, fur side up, over beam. Removes hair and flattens fur by stroking it with double-handled blunt-edged knife, occasionally dusting fur with powder to make hair more visible. Evens length of fur over entire skin with thin, keen edged knife scissors or shears.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.2100

Pelt Dyer, Hand

Pelt Dyer, Hand applies dye to fur-bearing pelts by hand. Applies dyes to felt with feather or brush to improve appearance of fur or to simulate hair of another fur-bearing animal. May spray dyes on fur, mix own dyes and be designated according to type of dyeing performed.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.2200

Pelt, Strecher

Pelt Strecher stretches, or smoothens and stretches, skins of dressed pelts. Pulls softened and greased pelts over fixed

blade by hand to enlarge area and smooth texture of skin. Stretches pelt by feeding it through power-operated machine or by holding pelt flat on table with one hand and pulling it taut with other. May also finish pelt by fluffing, beating, brushing and combing fur.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

7535.9900

Pelt Dressers, Tanners and Fell Mongers, Other

Pelt Dressers, Tanners and Fellmongers, Other include all other workers engaged in grading, fleshing, stretching, dressing, tanning, seasoning etc. not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7535

Title Pelt Dressers, Tanners and Fellmongers

Family 7536

Shoemakers and Related Workers

Shoemakers and related workers make, modify and repair standard, custom or orthopaedic footwear and natural or synthetic leather articles, such as luggage, handbags and belts, (except for leather garments, hats and gloves), or participate in the manufacture of shoes and related goods. They decorate, reinforce or finish shoes, luggage, handbags and belts.

7536.0100

Shoemaker, Hand

Shoe Maker, Hand; Shoe Maker, General makes complete shoe or other footwear mainly of leather for each individual customer. Takes measurement of customer's feet and studies design of shoe or footwear to be made. Selects and estimates material required for making different components such as upper, lining, sole, etc. Marks leather components with patterns and cuts them with knife (rapi) ensuring accuracy and minimum wastage. Skives leather edges with skiving knife to reduce thickness of different sections to be joined together. Prepares and carefully applies cementing solution by brush at skived portion for joining, taking care not to splash solution on leather surface while joining. Glues lining to leather parts and sews sole, upper and other components by hand or sewing machine. Punches eyelet holes and inserts eyelets in position, for lacing, by hand or machine. Rolls and pulls upper on last, nails it, keeps perfect alignment of toe and heel and shapes it according to pattern by light hammering and stretching. Sorts out twists and applies wax on thread to make it stronger. Stitches sole and other portions using awl and waxes thread. Cuts and prepares heel and attaches it to sole by nailing. Trims and finishes edges of shoe using knife (rapi) and glass piece. Cuts and fixes thin inner-sole with glue. Applies colour or polish and gives finishing touches to shoes. Checks each pair of completed shoe for uniformity rectifies defects if any and puts them on lasts for retention of shape and form. May repair footwear.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.0200**Shoemaker, Orthopaedic**

Shoe Maker, Orthopaedic makes complete footwear, mainly of leather, for customers with foot or leg deformities. Studies drawings and other specifications or takes necessary measurements to make footwear according to customer's need. Selects leather and gets special last made to suit necessity if required. Prepares patterns, chooses materials and cuts out parts by hand as per patterns made. Thins edges of parts of upper by cutting or shaving. Presses and bends parts into shape, glues lining to leather parts and sews them together. Punches eyelet holes and inserts eyelets. Tacks insole to last, pulls upper on to last to give it required shape and checks alignment of toe and heel of upper. Builds up sole where required, folds bottom of upper over edge of insole or built-up middle sole, fixes them together and fixes outer sole to upper. Builds up and fixes heel. Trims and smooths where necessary, applies inked wax stain or paint where required, inserts thin inner sole and gives final finish. May do ornamental nicking. May take plaster casts of deformed leg or foot and prepare drawings. May use prepared uppers with necessary modifications.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.0300**Shoe Repairer, Cobbler/Shoemaker Cobbler**

Shoe Repairer; Cobbler; Mochi repairs and reconditions old, worn out and defective shoes, sandals, slippers, etc. using hand

tools to make them serviceable. Carries own tools and materials goes round different localities, and collects worn out footwear from customers for repairs. Examines defects, determines repairs to be done and settles repair charges with customer. Removes or cuts off worn out portion of footwear and repairs them by re-soling (either full or half) attaching heels, stitching ripped seams, skiving and patching with new pieces of leather after softening in water, etc. as necessary, using. Knife (rapi) awl, hammer, last, nails, waxed thread, glass, etc. Fixes nails where necessary by placing shoe on iron last and ensures that sharp ends of nails are well bedded inside leather. Polishes shoes after repairs if desired by customer. May repair other leather articles. May work as paid employee at big repairing shops.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.0400**Pattern Maker (Foot Wear)**

Pattern Maker (Footwear) prepares patterns for cutting or trimming parts of footwear. Makes temporary paper pattern of various parts of shoes, such as ramp, tongue, or toe-box by sketching part (using drawing or written directions as guide) and cutting around outline, or by fitting paper over shoe last to obtain contour. Stencils papers pattern into sheet metal, thin wood, or millboard, and saws out finished pattern. May bind edges of pattern with thin metal strip. May cut patterns for article other than shoes.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7536.0500

Cutter, Hand

Cutter, Hand; Clicker Hand (Foot-wear) cuts components of shoes from tanned hides. Selects and spreads on wooden clicking board leather of thickness and quality appropriate to component to be cut (heel, tongue, sole, toe-cap, etc.). Notes direction of stretch and any defective spots. Plans cutting to obtain maximum number of useable pieces from leather. Stretches leather, places tin pattern on it and cuts out pieces with knife, continuing cutting until leather is used up. Counts pieces cut, stamps them with his identification number and bundles them. Sharpens his cutting knives. May prepare his time sheets.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.0600

Skiver, Hand (Foot Wear)

Skiver; Hand (Footwear) tapers leather components of footwear with knife to reduce thickness of parts to be joined. Determines amount of tapering required on parts to be joined. Softens edges of leather in water and tapers (skives) thickness of edges by cutting off leather at angle with skiving knife. Matches parts skived by putting one over other to assure that they fit properly and that no ridge will be formed. May join components by adhesive and stitching.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.0800

Laster, Hand

Laster, Hand joins upper of shoe to sole by pulling upper over last and nailing to sole. Applies French chalk or wax to proper size and shape last to prevent stitching of lining. Tacks insole lightly to last; inserts shoe counter and toe-puff in upper; pulls upper on last and tacks to sole, checking frequently to avoid folds and wrinkles. May nail metal or bamboo shank to insole. May tack rand pieces and heel lift to seat. May mount sandals on last.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.1200

Counter Moulder

Counter Moulder; Stiffener Moulder (Footwear) operates counter moulding machine to mould counters or stiffeners (shoe component) to shape of heel. Sets mould of required shape and size in machine. Places counter or stiffener in (mould). Depresses foot pedal to start machine which bends and presses counter into required shape. Releases foot pedal and takes out mould at counter. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.1500

Sole Stitcher, Hand

Sole Stitcher; Hand; Sole Sewer, Hand (Footwear) sews out-soles to shoes by hand using sole-stitching awl (tool) and waxed cords. Collects out-soles and shoes

to be stitched together. Sorts out thread, twists it into cord and draws it through wax ball to strengthen it. Positions outsole to shoe and marks guide line for stitching around welt of shoe. Cuts groove manually with knife along guide line in sole if channelled stitch is required. Softens sole and welt with water to facilitate stitching. Pierces awl through welt and sole, draws one end of cord through hole, punches another hole and draws cord through hole from opposite direction to form lock-stitch. Levels sole when sewed to welt by beating it with hammer. Feels by touch and sight and ensures correct stitching of sole. Trims off edges of sole if necessary. May nail iron tips in sole. May operate welt grooving machine.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.1600**Heel Attacher, Hand (Foot Wear)**

Heel Attacher, Hand (Footwear) fixes leather and rubber heels to shoes by driving nails with hammer. Collects heels to be attached according to size and shape of shoes. Selects well pointed nails of required size. Sets shoe on iron last (metal devices to hold shoes) with sole upward. Places heel on shoe and adjusts its position. Drives nails with hammer through heel and heel-seat to clinch them to insole. Checks frequently while nailing and ensures proper nailing and adjustment of heel to insole. Trims off edges of heels with knife to give desired shape. May attach iron-tips to heel.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.1700**Trimmer, Hand**

Trimmer, Hand (Footwear) trims and smoothens edges of soles and heels of shoes using hand knives, glass pieces and sand paper. Examines shoe and determines extent of trimming required. Selects sharp edged glass pieces, knife and sand paper. Trims edges of soles and heel of shoe with knife. Scrapes trimmed portions of shoe with glass piece and rubs it with sand paper to make trimmed surface uniform and smooth. Checks trimming and scouring frequently while working to avoid damage to shoe and to ensure correct finish. May do trimming and scouring by machine. May colour edges of sole and heel with chemical dyes.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.1800**Harness Maker**

Harness Maker makes and repairs harness by cutting, fitting and stitching parts together. Cuts various parts from leather stock according to design or pattern. Gives leather required colour and forms it by shaping; riveting, and trimming. Sews parts by hand or machine. Attaches buckles, rings and other metal devices to strap ends by looping over ends by stitching or riveting. Punches buckle holes in strap. Applies dressing to harness by hand. May repair items. May design patterns.

ISCO 08 Unit Group Details:

Code 7536

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Shoemakers and Related Workers

7536.1900

Saddler

Saddler; Saddle Marker makes new or repairs and adjusts old saddles. Cuts needed parts out of leather required size as per sample or pattern as guide quality and size. Stitches pieces into various saddle components by hand. Prepares saddle tree, web or woollen lining. Stuffs seat with sheep wool. Makes panels and fits different leather components to saddle by stitching, riveting or tacking as necessary. Trims excess thread, leather or wool. Colours edges and cleans saddle with soap. Repairs old and defective saddles by changing parts, trimming, stitching and making necessary adjustment. May design new patterns.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.2000

Leather Cutter, Hand

Leather Cutter, Hand (Harness and Saddle Making) cuts leather pieces for use in making harness and saddles. Places pattern on hide and marks around with pencil. Cuts on marked lines, using saddlers knife (rapi). May cut leather pieces for other uses.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.2100

Stitcher, Hand

Stitcher, Hand; Mochi (Harness and Saddle Making) makes and repairs leather belts and sews different leather parts of harness and saddlery. Selects leather and marks portion to be cut, using sample or pattern. Skives leather at seams and pricks marks on it to guide sewing. Applies wax on thread and leather to facilitate stitching. Stitches pieces together with waxed thread to form required part for harness and saddle. Finishes side of leather using edging tool, creases line with hot creasing tool for decoration and hand punches holes where necessary. Affixes buckles and metal parts, scrapes or cuts away extraneous material and dresses and treats leather parts with leather soap, oil, etc. to effect finished appearance. Applies required colour and polishes to high finish.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.2200

Assembler, Hand

Assembler, Hand (Harness and Saddle Making) joins leather parts to make harness and saddlery products. Skives (tapers) portions to be joined. Applies wax to facilitate stitching. Joins and assembles parts by hand stitching or nailing. Finishes sides of leather with edging tool. May put creasing lines on leather with hot creasing tool. May punch and bore fastening holes, and may give colour finish to assembled parts. May operate pricking machine.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.2300

Suitcase Maker

Suit Case Maker makes suitcases, attache cases and similar articles from leather or synthetic material. Cuts two sets of component parts, one from leather or other basic material to be used and other from cardboard, using guides or patterns. Glues together corresponding parts of cardboard and basic material. Assembles sections by gluing, machine sewing, riveting and otherwise fastening, affixes attachments such as rings, gussets, buckles, locks and handles. Applies dyes, and polishes and buffs. May design or copy patterns. May repair damaged articles. May finish edges of material and apply decorative marking by using heated edging and creasing tools.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.2400**Purse Maker**

Purse Maker; Wallet Maker; Document Case Maker makes purses, hand-bags, wallets, document cases, etc. from leather, rexine, plastic or other synthetic material. Marks measurements of different parts of article to be made on sheet of leather, plastic or other synthetic material and cuts them out with pair of scissors or rapi. Skives parts where necessary using skiving knife. Cuts grooves along edges and folds parts as required. Joins parts together with glue and stitches them along grooves on machine or by hand awl and cord making lock-stitches. Attaches handles, locks, straps, buttons, etc., and pastes lining cloth from inside. May perform decorative stitching where required. May attach steel frames.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.2500**Whip Maker**

Whip Maker makes leather whips by interlacing leather strips. Cuts leather strip of required length, width, and grelity into four strips leaving some portion uncut at end for handle. Trims, smoothens and interlaces strips and adds wax to hold them together. Shapes handle to complete whip. Colours and polishes entire whip.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.2600**Belt Maker**

Belt Maker makes and repairs leather belts, both for personal and industrial use. Follows sample or instructions and marks and cuts off needed leather pieces from roll. Skives (tapers) ends when pieces must be joined. Sews parts together, using waxed thread and awl to punch holes. Uses heated edging and creasing tools to aid in forming and decorating belt and hand tools to attach buckles, metal fixtures, and other parts. Trims belts with knife (rapi) and finishes it, by treating with oil, dyeing; and buffing. May make or repair canvas belts by stitching on leather parts, buckles and metal fixtures. May design new belts for personal use. May polish metal fixtures. May operate leather machines. May be designated as BELT MAN if engaged in repairing belts, installing them on motors and machinery,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and fixing fasteners in factory or workshop.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.2700

Horn Comb Maker (Hand)

Horn Comb Maker (Hand) makes horn combs from buffalo horns by using hand tools. Selects horns to suit requirements. Marks and saws them to required sizes. Scraps out outer rough layer, heats pieces in oven to make these soft, applies oil on heated pieces, places them in wooden mould and rolls cylindrical wooden rod by hand to straighten them; shapes pieces to desired size and thickness by planing and cutting using adze and hand saw; marks edges to cut teeth and saws teeth at equal distances to required depth; sharpens teeth edges with file; smoothes surface with sand paper and applies wax to shine and finish. Sharpens his own tools. May make other fancy horn products.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

7536.9900

Shoe Maker and Related Workers, Other

Shoe Makers and Related Workers, Other include all other shoe makers and related workers who are engaged in making and repairing standard or special footwear and, except for leather garments, hats and gloves, make natural or synthetic leather articles, such as luggage, handbags, and belts, or participate in the manufacture of shoes and related goods not elsewhere

classified. Plant and Machine Operators and Assemblers operate and monitor industrial and agricultural machinery and equipment on the spot or by remote control, drive and operate trains, motor vehicles and mobile machinery and equipment, or assemble products from component parts according to strict specifications and procedures.

ISCO 08 Unit Group Details:

Code 7536

Title Shoemakers and Related Workers

Group 754

Other Craft and Related Workers

Other craft and related workers work under the surface of water, using underwater breathing apparatus; position, assemble, and detonate explosives; inspect and test, raw materials, manufactured components and products; remove unwanted organisms to prevent damage to crops and buildings and other structures.

Occupations in this Group are classified into the following Families:

7541	Underwater Divers
7542	Shotfirers and Blasters
7543	Product Graders and Testers (Excluding Food and Beverages)
7544	Fumigators and Other Pest and Weed Controllers
7549	Craft and Related Workers, Not Elsewhere Classified

Family 7541
Underwater Divers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Underwater divers work under the surface of water, using underwater breathing apparatus to inspect, install, repair, and remove equipment and structures, conduct tests or experiments, rig explosives, photograph structures or marine life or find and recover missing items and persons.

7541.0100

Diver, Pearl

Diver, Pearl dives to sea bed to collect pearl oysters or chanks. Sets sail in boat and goes long distances on sea usually along with other divers, Rock Pilot and Man Duck. Removes sails of boat and anchors it in sea as directed by Rock Pilot. Dives to sea bed (50 to 60 feet in depth) by holding one end of rope, tied with heavy weight which is released into sea by Man Duck or someone else in boat. Releases hold on rope on reaching sea-bed, gathers by hand pearl oysters or chanks, and fills them in bag tied to his waist. Returns to surface of sea and hands over oysters or chanks to mate in boat. Repeats process to collect more oysters or chanks. May do chank diving during off seasons. May do deep sea fishing using different types of nets during off seasons. May operate power driven boats for fishing in deep sea waters.

ISCO 08 Unit Group Details:

Code	7541
Title	Underwater Divers

7541.0200

Diver, Chank

Diver, Chank dives to sea bed to collect chanks used for making bangles and like articles. Sets sail on boat and goes out to

sea along with other divers, Rock Pilot and Man Duck. Removes sail and anchors boat in Sea as directed by Rock Pilot. Holds one end of rope, fixed with heavy weight and released into sea and dives to sea bed. Releases hold on rope, collects chanks by hand and fills them in bag tied to waist. Returns to surface, hands over collection to mate in boat and repeats operation. May do pearl diving during pearl diving seasons. May operate power driven boats and do deep sea fishing.

ISCO 08 Unit Group Details:

Code	7541
Title	Underwater Divers

7541.0300

Coral Breaker

Coral Breaker dives to sea-bed to break and collect corals using crow bar or sharp tool. Goes singly or with groups of Fishermen in boats to places where coral exists. Dives to sea bed (8 to 10 feet in depth) taking crow bar or sharp tool. Breaks blocks of coral found attached to rocks with crow bar or other sharp tool. Lifts released corals to surface, loads them in boat and brings them to shore. May also fish in deep waters and catch fish using different types of nets.

ISCO 08 Unit Group Details:

Code	7541
Title	Underwater Divers

7541.0400

Shell Gatherer

Shell Gatherer dives to sea-bed and collects or gathers by hand molluscs, crustaceans and other fancy shells. Dives to sea-bed (20 feet in depth) and gathers by hand different types of shells such as

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

clams, oysters, mussels, crabs etc. Comes to surface with catch and stores them. Repeats process as required. May gather sponges if desired. May operate power driven boats and fish in deep waters. May wash and clean shells. May go to sea shore at low tide and collect shell fish, crabs etc. from inshore area.

ISCO 08 Unit Group Details:

Code	7541
Title	Underwater Divers

7541.0500

Seaweed Gatherer

Seaweed Gatherer collects by hand, from bottom of sea, different varieties of seaweed used for medicinal purposes. Dives to floor of sea (in shallow waters). Pulls out sea-weed attached to rocks and stores in boat. May collect sponges if required. May also fish in deep waters and catch fish using different kinds of nets or fishing tackles.

ISCO 08 Unit Group Details:

Code	7541
Title	Underwater Divers

7541.0600

Dress Diver

Dress Diver dives and works below surface of water, using scuba gear (self-contained under water breathing apparatus) or in diving suit with airline extending to surface, to inspect, repair, remove and install equipment and structures. Puts on diving suit with airline extending to surface or equips with scuba gear and descends into water with aid of helper; inspects docks, and bottoms and propellers of ships; communicates with surface by signal line or telephone; repairs

vessels below waterline, replacing missing or leaking rivets with bolts; caulk leaks in ships; cleans debris from intake and discharge strainers; assists in salvage of parts of wrecked ships and lost articles under-water. May cut and weld steel using oxyacetylene cutting torch and arc-welding equipment.

ISCO 08 Unit Group Details:

Code	7541
Title	Underwater Divers

7541.0700

Skin Diver

Skin Diver dives into sea water for underwater examination of keel of ship, propellers, pipes, sandpipes and hopper doors of dredges etc., for suspected breakage or leakage and reports defects. Receives order from supervisors and goes to spot where diving is required, on launch. Ascertains depth of water by putting sounding lines and judges whether skin diving is feasible. Dives into water by holding on rope attached with heavy weight (sinker) and lowered into bottom of water and reports defects to supervisors. Rectifies minor defects and removes obstructions while under water, if possible.

ISCO 08 Unit Group Details:

Code	7541
Title	Underwater Divers

7541.9900

Underwater Divers, Other

Underwater Workers, other include workers who work under water, dressed in scuba gear or diving suit, to inspect, install, repair, and remove equipment and structures not elsewhere classified.

ISCO 08 Unit Group Details:

Code 7541
Title Underwater Divers

Family 7542

Shotfirers and Blasters

Shotfirers and blasters, position, assemble, and detonate explosives at mining, quarrying and demolition sites.

7542.0100

Shot Firer

Shot Firer; Blaster; Dynamite Man conducts blasting operations in mines and quarries by charging drilled holes with requisite amount of explosives. Examines holes and areas to be blasted. Ensures that shot holes are properly drilled and cleaned before charging. Determines quantity and type of explosive to be used; loads shot hole with cartridges of explosive. Stems hole with clay, sand or other suitable stemming to prevent shot from blowing out. Signals Shot Firer Operative nearby to take safety measures. Couples fuse or cable to detonator lead. Splits end of fuses with knife or connects cable to electric exploder. Lights fuse or operates key of exploder to ignite explosive. Follows signal and restrains entry of workers at place of explosion before exploding and until atmosphere in area is free from dust, smoke or fumes. Directs Stone Duster to spread stone dust over roof floor and sides of roadways for suppressing coal dust explosives. Takes prescribed precautions in case of misfire. Maintains logbook for recording quantity of explosive used, number of shots fired and misfired, if any. May drill shot holes in quarries and mines using pneumatic or hand drills.

ISCO 08 Unit Group Details:

Code 7542
Title ShotFirers and Blasters

7542.0101

Person Handling Explosives

Persons handling explosives, in open cast mines, is a part of the blasters sub-category. The individual performing this role facilitates mining operations by cautiously storing, transporting and handling explosives used for blasting in mines. Controlled blasting techniques are used to remove debris and over-burden in order to make way for coal or other metals.

The nature of this job requires employees to follow extensive safety precautions therefore the individual has to be experienced and trained in safety procedures and guidelines for mining operations prescribed by DGMS.

Qualification Pack Details:

QP NOS Reference	MIN/Q 0405
QP NOS Name	Person Handling Explosives
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code
Title

7542.0200

Safety Lamp Checker

Safety Lamp Checker checks locks and air leakages of miners' safety lamps and searches persons against carrying any igniting material before going underground. Checks miners' safety lamps at pithead by blowing them with compressed air jet to ensure that they are properly locked and there is no leakage.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Searches persons going underground against carrying any contrabands. May keep count of number of men underground by checking number of lamps issued and checked.

ISCO 08 Unit Group Details:

Code 7542
Title Shot Firer and Blasters

7542.0300 Cobber, Mica

Cobber, Mica; Rifter, Mica; Shearer, Mica separates waste rock and inferior quality mica from crude mica pieces by hand or with knife. Removes waste rock from crude mica pieces by manually splitting into layers with hand or knife. Examines mica blocks visually for damages, stains etc. and removes defects by chipping them out with knife. May dress mica blocks with sickle to remove impurities and inferior mica.

ISCO 08 Unit Group Details:

Code 7542
Title Shot Firerers and Blasters

7542.0400 Sickle Dresser, Mica

Sickle Dresser, Mica; Cutter, Mica dresses cobbed mica blocks by chipping out broken and damaged portions with sickle for further processing. Examines mica blocks visually to detect defects, stains, etc. and determines damaged and broken portions to be dressed. Rifts defective layers, if necessary, and dresses it to different sizes by chipping out broken and damaged portions with sickle. May do knife dressing and grading of mica blocks.

ISCO 08 Unit Group Details:

Code 7542
Title Shot Firerers and Blasters

7542.0500 Screener, Mica

Screener, Mica screens out loose split mica to desired sizes using rope-mesh-screen. Positions screen in inclined position. Drops loose split mica leaves at upper end of screen and shakes it with attached rope to allow small sized leaves to drop through screen holes and to get larger sized leaves collected at its foot. Removes large sized mica leaves from screen frame for further processing or packing.

ISCO 08 Unit Group Details:

Code 7542
Title Shot Firerers and Blasters

7542.0600 Knife Dresser, Mica

Knife Dresser, Mica dresses sickle dressed mica blocks by slicing broken or damaged edges with knife. Weighs sickle dressed mica blocks. Examines them visually to detect stains, damages, etc. Dresses out blocks of desired sizes by slicing damaged edges with knife, ensuring minimum possible wastage. Weighs dressed mica blocks to determine amount of resulting wastage. May sort and grade dressed mica blocks.

ISCO 08 Unit Group Details:

Code 7542
Title Shot Firerers and Blasters

7542.0700 Film Splitter, Mica

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Film Splitter, Mica; Condenser, Mica splits dressed and graded mica blocks into films of desired thickness by hand or using double edged knife. Examines blocks to determine uniformity of dressing and re-splits them, if necessary by hand or knife into films of desired uniform thickness. Measures thickness of films with micrometre and sorts them into pliers according to thickness. Cuts films to specified shape and measures area with gauges to ensure conformity with specification. May be designated as Loose Splitter if engaged in splitting up loose mica blocks into leaves by hand and as Book Form Splitter if engaged in splitting graded mica blocks with double-edged knife.

ISCO 08 Unit Group Details:

Code	7542
Title	Shot Firerers and Blasters

7542.0800

Deep Cell Attendant

Deep Cell Attendant; Flotation Man controls floatation process in concentration plant to recover copper from pulp (pulverized ore mixed with water). Measures density and alkalinity of pulp using meters and indicators to ensure proper floatation. Regulates airflow into concentration plant to agitate pulp and regulates water supply into cells as guided. Records data of pulp density, reagent feed, alkalinity, airflow etc. and submits them to appropriate authority.

ISCO 08 Unit Group Details:

Code	7542
Title	Shot Firerers and Blasters

7542.9900

Shot Firers and Blasters, Other

Shot Firers and Blasters, other perform variety of routine and low skilled tasks such as carrying explosive, detonator and fuses holding light or torch for Shot Firer cleaning holes and danger areas, conveying messages of accident and misfire, picking shot holes with explosives, preparing clay balls, cleaning and dressing loose stuff etc. and may be designated as Explosive Carriers carries explosive in rocked containers. Short Fire Helper; Blaster Helper assists shot Fire in charging holes and guarding place of work etc. Stone Duster spreads stone dust over roof, floor and sides of roadways for suppressing coal dust explosions.

ISCO 08 Unit Group Details:

Code	7542
Title	Shot Firerers and Blasters

Family 7543

Product Graders and Testers (Excluding Food and Beverages)

Product graders and testers (except foods and beverages) inspect, test, sort, sample, and weigh raw materials, manufactured components and non-comestible goods produced or sold, to ensure compliance with quality standards and to identify defects, wear, and deviations from specifications, and to grade and classify them according to their quality.

7543.0101

Cloth Examiner/Fabric Checker

Cloth Examiner; Cut Looker; Table Folder; Piece Examiner (Cotton Textile) examines cloth received from Folder, Machine for defects and checks width and yard-age. Compares quality (sometimes using a

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

magnifying glass) and yardage etc. of each piece of cloth with list supplied to him and notes discrepancies. Checks every fold for defects and puts aside defective cloth to be shown to Weaver Power loom. Marks yardage, quality and his own number on cloth with pencil.

Qualification Pack Details:

QP NOS Reference	AMH/Q0101
QP NOS Name	Fabric Checker
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0201

QC Executive-Sewing Line

QC Executive-Sewing Line is responsible for ensuring that physical inspections are conducted at all stages of production to secure quality and check that all technical details are received; verified and signed off prior to starting production. QC executive also establishes quality plans, parameters and inspection systems, records deviations and sends feedback to the concerned department.

Qualification Pack Details:

QP NOS Reference	AMH/Q1401
QP NOS Name	QC Executive-Sewing Line
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0202

Quality Assessor

Quality Assessor should be able to carry out Quality control/Quality assurance processes, understanding product and processes required at various stages of production for meeting the expectations of final customers.

Qualification Pack Details:

QP NOS Reference	AMH/Q1701
QP NOS Name	Quality Assessor
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0300

Examiner, (Footwear)/Quality Controller

Examiner (Footwear) examines finished and unfinished shoes and shoe components for faults. Inspects items for defects such as irregularity of surface, misplaced or incompletely driven tacks, uneven or defective stitching, improperly proportioned toe-tip. Returns items with major defects for reprocessing. May correct minor defects with hand tools. May be designated according to part of shoe inspected or department in which employed such as HEEL EXAMINER (FOOTWEAR), LINING EXAMINER (FOOTWEAR), UPPER EXAMINER (FOOTWEAR), CLOSING EXAMINER (FOOTWEAR), FINAL EXAMINER (FOOTWEAR), etc.

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

7543.0301

Measurement Checker

Measurement Checker inspects the accuracy of the dimensions of the stitched parts and the finished apparel. The primary responsibility of a Measurement checker is to measure all the dimension of the apparel and ensure they are free from defects.

Qualification Pack Details:

QP NOS Reference	AMH/Q0103
QP NOS Name	Measurement Checker
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0302

Inline Checker

In-Line checker is an important job-role associated with Apparel sector. The primary responsibility of a checker is to identify the faults in the fabrics, cut components and garment parts through visual inspection.

Qualification Pack Details:

QP NOS Reference	AMH/Q0102
QP NOS Name	In-Line checker
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0400

Examiner, Dry Cleaning/Fabric

Inspection Operator

Examiner, Dry-cleaning examines garments, textile furnishings or any other similar articles after dry-cleaning to detect and remove spots, stains or damage caused by process. Examines garments after dry cleaning for defects and damage. Passes on defective articles to Spot Remover or to Darner according to nature of defect for mending. May get garments washed or dry-cleaned afresh.

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0500

Examiner, Wood Working

Examiner, Wood Working; Viewer Wood Working; Wood Grader examines wood and finished wooden articles on completion or at different stages of production and ensures adherence to prescribed tolerances and specifications. Studies drawings and specifications and notes types of articles to be made. Examines type and quality of wood for grains, knots etc. for grading and to ensure adherence to prescribed specifications. Checks marking, sawing, shaping, joining, setting etc. along with drawing or sample using foot rule, callipers and other instruments at various stages of production and ensures required finish of completed article. Records defects where noticed, rejects defective pieces or suggests rectifications, if possible. May check machine set up, blending of patches, inlaying, seasoning of wood and like factors for manufacture of particular items such as sports goods, cabinets, furniture, rifle butts etc. May estimate material and labour cost.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 7543

Title Product Graders and Testers
(Excluding Food and Beverages)

ensure it meets the defined specifications. The individual performs physical and functional quality checks on the assembled product and ensure only QC passed equipment is sent for packing.

7543.0701

Incoming QC Technician

Incoming Quality Check Technician checks sub-assemblies and modules received from suppliers for physical and functional match of specifications to ensure that defect-free components are used in production. The individual at work is responsible for checking quality check on the components and modules procured from suppliers for production of hardware equipment. The individual performs physical and functional quality check processes on the components and modules and ensure QC passed components is used for hardware assembling.

Qualification Pack Details:

QP NOS Reference ELE/Q4401

QP NOS Name Incoming QC
Technician

NSQF Level 5

Qualification Pack Details:

QP NOS Reference ELE/Q4402

QP NOS Name Final Product QC
Technician

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7543

Title Product Graders and Testers
(Excluding Food and Beverages)

7543.0801

Functional Tester

Functional Tester is responsible for checking functions of manufactured industrial equipment such as UPS, inverter, energy meter, PLC, oscilloscope, control panel. The individual at work tests specified functions of every product being assembled on the production line.

Qualification Pack Details:

QP NOS Reference ELE/Q7401

QP NOS Name Functional Tester
NSQF Level 3

ISCO 08 Unit Group Details:

Code 7543

Title Product Graders and Testers
(Excluding Food and Beverages)

Title Product Graders and Testers
(Excluding Food and Beverages)

7543.0702

Final Product QC Technician

Final Product Quality Check Technician checks functional output of the assembled hardware equipment against pre-defined specifications. The individual at work is responsible for checking the various functions of the hardware equipment and

7543.0802

Performance Tester

Performance Tester checks samples of the final assembled product for key performance parameters under simulated conditions. The individual at work tests

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

performance parameters of UPS, energy meter, PLC and other industrial equipment for a randomly selected sample of products and ensures that they are within acceptable ranges.

Qualification Pack Details:

QP NOS Reference	ELE/Q7402
QP NOS Name	Performance Tester
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0803

Reliability Tester

Reliability Tester is responsible for ensuring the long term performance of a product. The individual at work, tests the modules such as power supply or PCB of UPS, inverter, PLC, control panel, and other units under extreme specified conditions to check stress test pass or failure rate.

Qualification Pack Details:

QP NOS Reference	ELE/Q7404
QP NOS Name	Reliability Tester
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0804

Safety Testing Technician

Safety Testing Technician is also called, ‘Safety Inspector’, the Safety Tester is responsible for assuring that the appliance meets prescribed safety standards. The

individual at work, tests safety parameters of the assembled UPS, inverter, energy meter, PLC, oscilloscope, control panel and automation units as per BIS or other standards.

Qualification Pack Details:

QP NOS Reference	ELE/Q7403
QP NOS Name	Safety Testing Technician
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.0901

Functional Tester-Medical Devices

Functional Tester conducts tests on medical devices at different stages of the manufacturing process in order to check their conformance with the device’s defined performance parameters. The individual at work is responsible for testing the medical devices for pre-defined functional specifications, quality parameters and check them against the performance parameters of that device.

Qualification Pack Details:

QP NOS Reference	ELE/Q7803
QP NOS Name	Functional Tester-Medical Devices
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.1001

Functional Tester-RAC

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Functional Tester-RAC is also called, 'Product Inspector', the Functional Tester checks all the functions of the manufactured product before dispatch. The individual at work tests all the functions of the assembled product as per product specifications, either on sample or entire lot. Any defective product passed back on to the in-line repair team.

Qualification Pack Details:

QP NOS Reference	ELE/Q3601
QP NOS Name	Functional Tester-RAC
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.1002

Functional Tester-TV

Functional Tester TV is also called, 'In-line Product Inspector' the Functional Tester is responsible for quality check during television set assembly. The individual at work tests all the specified functions of each television set assembled on the line. The individual returns any defective product or module to the in-line repair team.

Qualification Pack Details:

QP NOS Reference	ELE/Q3602
QP NOS Name	Functional Tester-TV
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.1003

Safety Testing Technician-TV

Safety Testing Technician-TV is also called, 'Safety Inspector', is responsible for assuring that the TV set meets prescribed safety standards. The individual at work, tests safety parameters of the assembled refrigerator or air conditioner or washing machine or other home appliances as per BIS, ISI or other standards.

Qualification Pack Details:

QP NOS Reference	ELE/Q3603
QP NOS Name	Safety Testing Technician-TV
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.1004

Safety Testing Technician-RACWO

Safety Testing Technician-RACWO is also called, 'Safety Inspector', the Safety Testing Technician is responsible for assuring that the appliance meets prescribed safety standards. The individual at work, tests safety parameters of the assembled refrigerator or air conditioner or washing machine or other home appliances as per BIS or other standards.

Qualification Pack Details:

QP NOS Reference	ELE/Q3605
QP NOS Name	Safety Testing Technician-RACWO
NSQF Level	3

ISCO 08 Unit Group Details:

Code	7543
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Product Graders and Testers
(Excluding Food and Beverages)

QP NOS Reference ELE/Q3607
QP NOS Name Performance
Tester-TV
NSQF Level 4

7543.1005

Performance Tester-RACW

Performance Tester is responsible for checking energy consumption and functional durability aspects of cooling, heating or duty cycle of sample refrigerator, air-conditioner, washing machine and other home appliances as per test standards such as ISO and company's guarantee. The individual at work runs simulation tests on the appliance to check its performance and reliability in terms of parameters such as energy consumption, temperature, vacuum and pressure, and duty cycle.

Qualification Pack Details:

QP NOS Reference ELE/Q3606
QP NOS Name Performance
Tester-RACW
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7543
Title Product Graders and Testers
(Excluding Food and Beverages)

7543.1006

Performance Tester-TV

Performance Tester-TV is also called, 'Performance Inspector', responsible for checking audio-visual performance aspects of TV with respect to picture and sound quality as per guaranteed specifications. The individual at work runs simulated tests to check performance parameters of the TV set as per company recommended or international standards.

Qualification Pack Details:

ISCO 08 Unit Group Details:

Code 7543
Title Product Graders and Testers
(Excluding Food and Beverages)

7543.1101

Testing Technician

Testing Technician is responsible for checking that the assembled and encapsulated component functions as per input and output specifications. The individual at work operates the automated test machine or checks manually on jigs, the components for functioning as per specifications.

Qualification Pack Details:

QP NOS Reference ELE/Q1801
QP NOS Name Testing Technician-
Active components
NSQF Level 4

ISCO 08 Unit Group Details:

Code 7543
Title Product Graders and Testers
(Excluding Food and Beverages)

7543.2001

Quality Inspector-forged, casted or machined components

Quality Inspector-forged, casted or machined components checks the forged, casted and machined components for both dimensional accuracy and for visual quality at various stages of manufacture, such as before production, intermediate and after production and recording the

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

results of the inspection during and after the inspection activities.

Qualification Pack Details:

QP NOS Reference	CSC/Q0601
QP NOS Name	Quality Inspector-forged, casted or machined components
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.3001

Quality Control Inspector-Calendering

Quality control Inspector-Calendering in this role is responsible for controlling the quality of the product during the calendering process.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0730
QP NOS Name	Quality Control Inspector-Calendering
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.3002

Quality Control Inspector-Dimension check

Quality Control Inspector-Dimension check carries out dimension checks to ensure conformance to dimensions of rubber product.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0418
QP NOS Name	Quality Control Inspector-Dimension check
NSQF Level	4

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.3003

Quality control Inspector-Extrusion

Quality Control Inspector-Extrusion in this role is responsible for controlling the quality of the product during the extrusion process.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0624
QP NOS Name	Quality Control Inspector-Extrusion
NSQF Level	5

ISCO 08 Unit Group Details:

Code	7543
Title	Product Graders and Testers (Excluding Food and Beverages)

7543.3004

Quality Control Inspector-Statistical process control

Quality Control Inspector-Statistical process control carries out Statistical process control by collecting different production related data and use appropriate technique to carry out statistical analysis.

Qualification Pack Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Reference	RSC/Q 0416
QP NOS Name	Quality Control Inspector-Statistical process control
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code 7543
Title Product Graders and Testers
(Excluding Food and Beverages)

7543.3005

Quality Control Inspector-Visual Inspection

Quality Control Inspector-Visual Inspection is responsible for inspecting the quality of rubber product visually and identify defects, if any.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0417
QP NOS Name	Quality Control Inspector-Visual Inspection
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code 7543
Title Product Graders and Testers
(Excluding Food and Beverages)

7543.4001

Factory Compliance Auditor

Factory Compliance Auditor is responsible for conducting regular audits in the apparel factory to check if the unit is functioning in accordance to the industry regulations, standards and policies. The Compliance Auditor prepares a detailed report of the audit findings with remarks on system adequacy, system conformance or deviation if any, and overall system performance.

Qualification Pack Details:

QP NOS Reference	AMH/Q2201
QP NOS Name	Factory Compliance Auditor
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code 7543
Title Product Graders and Testers
(Excluding Food and Beverages)

7543.5001

Sampling Co-ordinator

Sampling Co-ordinator plans, handles and monitors new product development, regular follow up with all sampling like: proto sample, size sets, fit samples and photo shoot samples.

Qualification Pack Details:

QP NOS Reference	AMH/Q 1801
QP NOS Name	Sampling Co-ordinator
NSQF Level	#N/A

ISCO 08 Unit Group Details:

Code 7543
Title Product Graders and Testers
(Excluding Food and Beverages)

7543.9900

Product Graders and Testers, Others

Product Graders and Testers, Others include graders and testers who inspect, test, sort, sample, and weigh raw materials, manufactured components and non-comestible goods produced or sold, to ensure compliance with quality standards not elsewhere classified.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 7543

Title Product Graders and Testers
(Excluding Food and Beverages)

Family 7544

Fumigators and Other Pest and Weed Controllers

Fumigators and other pest and weed controllers use chemicals to remove harmful insects, small animals, wild plants and other unwanted organisms to prevent damage to crops and to buildings and other structures and their surroundings and to prevent health risks.

Family 7549

Craft and Related Workers, Not Elsewhere Classified

This family covers craft and trade occupations not classified elsewhere in Division 7, Craft and related trades workers. For instance, the family includes those who mould, slice, grind and polish optical lenses.

Division 8

Plant and Machine Operators, and Assemblers

Plant and Machine Operators, and Assemblers operate and monitor industrial and agricultural machinery and equipment on the spot or by remote control, drive and operate trains, motor vehicles and mobile machinery and equipment, or assemble products from component parts according to strict specifications and procedures. The work

mainly calls for experience with and an understanding of industrial and agricultural machinery and equipment as well as an ability to cope with machine-paced operations and to adapt to technological innovations.

Tasks performed by Plant and Machine Operators and Assemblers usually include: operating and monitoring mining or other industrial machinery and equipment for processing metal, minerals, glass, ceramics, wood, paper, or chemicals; operating and monitoring machinery and equipment used to produce articles made of metal, minerals, chemicals, rubber, plastics, wood, paper, textiles, fur, or leather, and which process foodstuffs and related products; driving and operating trains and motor vehicles; driving, operating and monitoring mobile industrial and agricultural machinery and equipment; assembling products from component parts according to strict specifications and procedures. Supervision of other workers may be included.

Occupations in this Division are classified into the following Sub Divisions:

81	Stationary Plant and Machine Operators
82	Assemblers
83	Drivers and Mobile Plant Operators

Sub Division 81

Stationary Plant and Machine Operators

Stationary Plant and Machine Operators operate and monitor, on the spot or by remote control, industrial plant and machinery and equipment that are stationary, or for which mobility is not an integral part of operation.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

The work mainly calls for experience with and an understanding of the industrial plant, machinery or equipment being operated and monitored. Ability to cope with machine-paced operations and to adapt to innovations in machinery and equipment is often required.

Tasks performed by workers in this sub-major group usually include: setting up, operating and monitoring a variety stationary plant and machinery; detecting malfunctions and taking corrective action; examining outputs for defects and conformity to specifications and adjusting machine settings accordingly; performing maintenance, repairs and cleaning; recording data and maintaining production records. Supervision of other workers may be included.

Occupations in this Sub Division are classified into the following Groups:

811	Mining and Mineral Processing Plant Operators
812	Metal Processing and Finishing Plant Operators
813	Chemical and Photographic Products Plant and Machine Operators
814	Rubber, Plastic and Paper Products Machine Operators
815	Textile, Fur and Leather Products Machine Operators
816	Food and Related Products Machine Operators
817	Wood Processing and Paper Making Plant Operators
818	Other Stationary Plant and Machine Operators

Group 811 Mining and Mineral Processing Plant Operators

Mining and Mineral Processing Plant Operators operate and monitor plant and machinery which extract rock and minerals from the earth, process minerals and stone, drill wells and bores, and manufacture and finish cement and stone products.

Occupations in this Group are classified into the following Families:

8111	Miners and Quarriers
8112	Mineral and Stone Processing Plant Operators
8113	Well Drillers and Borers and Related Workers
8114	Cement, Stone and Other Mineral Products Machine Operators

Family 8111 Miners and Quarriers

Miners and Quarriers operate plant, machinery and hand tools to extract rock, minerals and non-metallic deposits from underground and surface mines and quarries.

8111.0100 Miner, Coal Cutting Machine

Miner, Coal Cutting Machine, Coal Cutting Machine Driver; Coal Cutting Machine man sets and operates electric or pneumatic coal cutting machine for loosening coal working face for blasting by undercut below seam up to specified depth. Moves machine with accessories to working place with assistance of Mining Operatives. Sets it in position to make undercut below seam up to specified depth. Manipulates levers to start motion of endless cutting chain on cutter bar and effect forward movement of machine.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Advances cutter bar into working face to cut coal and repeats operation to make other cuts across or down side of working face as desired. Lubricates, adjusts and makes minor repairs to machine as required.

ISCO 08 Unit Group Details:

Code 8111

Title Miners and Quarriers

8111.0200

Driller, Machine

Driller Machine; Machine Runner Driller, Jack Hammer drills shot holes of required depth and diameter according to marking in coal minerals, metallic and non-metallic rock faces by electric or petrol engine or compressed air drilling machine as directed according to depth and diameter of hole to be drilled. Operates drill to bore holes of required depth by moving machine backward and forward, if necessary, moves machines to other points and repeats operations to make other holes. Replaces blunt or damaged cutting bits, if necessary. May operate jackhammer to drill holes. May sharpen drill-bits.

ISCO 08 Unit Group Details:

Code 8111

Title Miners and Quarriers

8111.0300

Waggon Driller

Waggon Driller; Churn Driller, Deep Hole Driller operates waggon or churn drill to make deep holes of large diameters in hard or soft rock faces for blasting. Installs and adjusts position of machine. Fits appropriate drill-bit in drilling machine. Operates drilling machine at regulated

feed, speed and pressure to drill hole. Stops machine and raises drilling rod out of hole when one bar length is drilled. Adds rod lengths as required and continues operation to drill hole up to required depth. Replaces blunt or damaged drill bits as required. May do minor running repairs to machine. May also sharpen drill bit when required and if possible.

ISCO 08 Unit Group Details:

Code 8111

Title Miners and Quarriers

8111.0400

Diamond Driller

Diamond Driller drills earth strata at specified site up to prescribed depth to locate or prospect underground minerals using diamond drill. Installs machine at specified site. Sets direction and angle of drilling rod against working face. Controls and regulates bit-pressure, rate of feed, speed of drill and flow of water into hole through bit. Adds rod lengths to drilling bits as and when required. Drives metal pipes and casing of pipes through hole at regular intervals to avoid caving. Submits core samples (extracted soil during drilling) for analysis. Keeps correct log (records) of holes drilled and drills used. May lubricate and make minor repairs to machine.

ISCO 08 Unit Group Details:

Code 8111

Title Miners and Quarriers

8111.0401

Rig Mounted Drill Operator

Rig Mounted Drill Operator drives and operates a drill machine which is a self-

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

propelled machine used to drill shallow as well as deep holes in the soil and rock for blasting or for quarry operations. The holes are caused by crushing under percussion and/or by drill bit rotation causing abrasion. The drill operates on pneumatic hydraulic system and uses compressed air as power source. Operating a drill is a specialized task that can be safely performed only with adequate training and experience. Drill Operators are also responsible for performing basic maintenance on the machine.

Qualification Pack Details:

QP NOS Reference	MIN/Q 0402
QP NOS Name	Rig Mounted Drill Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code
Title

8111.0500

Pick Miners

Pick Miner extracts coals diamond, metal ore etc. by cutting working face of mine with pick axe where machine mining is not economical or possible. Examines working face. Cuts into seam on sides and floor using pick to loosen rock. Dresses roof and sides of working face, when blasting is complete to remove loosened rock. Breaks bigger rock lumps into smaller size fills basket with broken ore and loads ore into mine cars for transportation to haulage point. May make undercut below coal seam, clear under cut for drilling and blasting and also push loaded cars to haulage point. May be designated as MINER PICK AXE HAND CUT MINER, HAND CUTTER, FLOOR COAL CUTTER in case of

coal mining and MINE DIGGER if engaged in diamond mining.

ISCO 08 Unit Group Details:

Code	8111
Title	Miners and Quarriers

8111.0600

Miner, Metal

Miner, Metal extracts metal ores in underground or open cast mines by breaking blasted slabs, dressing roof sides and working face with crowbar, hammer, shovel and pick axe. Strikes working face with crowbar or pick-axe to loosen and drop metal ores. Cuts floor ores with pick-axe and dresses sides properly. Breaks large pieces into smaller ones with sledge hammer, shovels metal ores into baskets and empties them into Chats (large tubes) for onward transmission for processing. May drill hole in roof face using crowbar and hammer to prepare working face for blasting. May separate ore from impurities. May be designated as MUCKER or MUCKING WORKER if engaged in copper mines.

ISCO 08 Unit Group Details:

Code	8111
Title	Miners and Quarriers

8111.0700

Miner, Mica

Miner, Mica extracts crude mica from working face in mica mine with chisel and hammer after blasting. Strikes working face with chisel and hammer to extract mica after it has been loosened by blasting. Dresses roof and sides to extract loosened mica blocks. May fill bags with mica blocks for transportation to factory. May drill holes in working face for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

blasting. May blast mica bearing veins with explosives during hand cutting.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.0800

Miner, Coal

Miner. Coal; Coal Cutter; Coal Puller extracts coal from coal pillars inside mines using crowbar and pick-axe after coal pillars are blasted by Shot Firer. Strikes sides of pillar with pick-axe or crowbar to loosen and drop coal from pillars. Cuts working face with pick-axe and dresses hanging coal from roof and sides with crowbar. Breaks coal lumps to convenient sizes and shovels them into tubs. May set loaded tubs on tram lines. May be designated as C. P. MINER (Coal Pillar Mines) if does charging and blasting of shot holes as well; and as MINER DE-PILLARING if gets it done by Shot Firer.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.0900

Quarryman, Stone/Quarryman, Non-metal

Quarryman, Stone; Miner Stone, extracts various kinds of stone from quarries or open pits. Removes loose soil and mud from surface and sides of blasted deposits using shovel. Removes slabs of stones from earth with crowbar, wedge or pick and breaks them into convenient size using sledge hammer. Dresses rough surface of stone and granite blocks by chipping and cuts them as instructed to required shape and size. May drill shot

holes in quarry face for blasting. May sort out ore and mineral according to quality.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.1000

Quarryman, Other

Quarryman, other extracts china clay, lime stone, fire clay and other non-metal deposits from quarry by cutting breaking etc. using pick axe, crow bar, spade and other tools. Digs soil to reach deposits. Drills specified shot holes of required depth in rock faces for blasting by SHOT FIRER. Extracts lime stone, china clay, fire clay and other deposits from blasted quarry faces using shovel pick axe, crowbar etc. Breaks large pieces in to convenient size with hammer and gets them removed or specified place. May charge and ignite explosive. May specialize in extracting china clay using pick axe, shovel land spade. May carry basket filled with china clay to specified place. May dewater quarry with pump or bucket, remove mud and perform alike duties if required.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.1100

Main Header Colliery

Main Header, Colliery construct narrow roads for opening new works, cuts air passages and blocks old roads in coal mine. Receives instructions on dimension and location of gallery (Tunnel or passage in coal mine) to open new work. Cuts tunnel passage according to specification

using mechanical devices and hand tools, inserting pipe range for pumping operations, exploring strata to know behaviour of roof, etc. Cuts air passages and blocks old roads by drilling, blasting etc. Shovels coal, rock and refuse from corners and working areas into cars to prevent interference with mining operations and circulation of air. May also be engaged in shaft sinking.

ISCO 08 Unit Group Details:

Code	8111
Title	Miners and Quarriers

8111.1200**Stone Cutter, Mines**

Stone Cutter, Mines makes holes or cuts stone or rock faces in mine with machine or hand tools such as power drill, crowbar, chisel etc. for putting up support or constructing brick foundation. Marks portion of roof and footwall to be cut for insertion of prop. Cuts face of hitches underground and makes hole to desired depth according to diameter to prop, using power drill, crow bar, chisel hammer etc. Removes rubbish and erects roof supports. May drill shot holes for bringing down roof or blowing floor. May build roadways and pack walls of air ways.

ISCO 08 Unit Group Details:

Code	8111
Title	Miners and Quarriers

8111.1300**Roof Bolter, Mining**

Roof Bolter, Mining operates machinery to install roof support bolts in underground mine. Drill bolt holes into roofs at specified distances from ribs or adjacent bolts. Forces bolts into holes,

using hydraulic mechanisms of self-propelled bolting machines. Installs truss bolts traversing entire ceiling spans. Positions bolting machines, and insert drill bits into chucks. Positions safety jacks to support underground mine roofs until bolts can be installed. Removes drill bits from chucks after drilling holes, then inserts bolts into chucks. Rotates chucks to turn bolts and open expansion heads against rock formations. Tests bolts for specified tension, using torque wrenches. Tightens ends of anchored truss bolts, using turnbuckles.

ISCO 08 Unit Group Details:

Code	8111
Title	Miners and Quarriers

8111.1400**Mine Cutting and Channelling Machine Operator**

Mine Cutting and Channelling Machine Operator operates machinery, such as longwall shears, plows, and cutting machines to cut or channel along the face or seams of coal mines, stone quarries, or other mining surfaces to facilitate blasting, separating, or removing minerals or materials from mines or from the earth's surface. Cuts slots along working faces of coal, salt, or other non-metal deposits in order to facilitate blasting, by moving levers to start the machine and to control the vertical reciprocating drills. Determines locations, boundaries, and depths of holes or channels to be cut. Drives mobile, truck-mounted, or track-mounted drilling or cutting machine in mines and quarries or on construction sites. Moves controls to start and position drill cutters or torches, and to advance tools into mines or quarry faces in order to complete horizontal or vertical cuts. Moves planer levers to control and adjust

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

the movement of equipment, the speed, height, and depth of cuts, and to rotate swivel cutting booms. Observes indicator lights and gauges, and listen to machine operation in order to detect binding or stoppage of tools or other equipment problems. Repositions machines and move controls in order to make additional holes or cuts. Signals that machine plow blades are properly positioned, using electronic buzzers or two-way radios. Charges and sets off explosives in blasting holes.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.1500 **Timberman, Mines**

Timber man, Mines; Timber Worker, Propping Worker examines roof and side walls of haulage-ways, air passages, shafts, galleries, etc. inside mine and erects timber or steel props frames etc. to support them. Collects material near work site and examines roof and sidewalls of haulage-ways, air passages, shafts, galleries etc. inside mine. Takes measurements off from floor to roof to decide height of prop required. Cuts props and logs to required length. Erects props on secure foundation and tightens them against roof using rectangular blocks. Installs ladders, chutes, cribs and other frame work to support roof and walls using saw, axes, hatchet, hammer, spikes and wedges as necessary. Ensures removal of woodcuttings from work place. May also drill holes in roof and walls for timbering purposes and drive roof bolts. May remove or replace defective props.

ISCO 08 Unit Group Details:

Code 8111

Title Miners and Quarriers

8111.1600 **Creeperman, Colliery**

Creeperman Colliery; Creeper Khalasi operates creeper (endless link chain with catchers or conveyors) for raising coal tubs on surface to higher level. Sets up link chain with conveyor at surface or from working face in mine. Joints conveyor sections on frames and connects power unit or switches on. Regulates conveyor or link chain tension by operating controls. Tends chain to transport coal or metal ore. Cleans, lubricates and makes minor repairs to conveyor and power unit as required. May supervise Loaders who shovel material into conveyor. May operate mechanical scoop to lift material on to conveyor. May keep conveyor track free from obstruction to prevent jamming and damage.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.1700 **Stowing Worker**

Stowing Worker; Boxing Worker erects props and barricades of bamboo matting and hessian cloth around coal depillaring areas for compactly filling them with sand, to prevent caving in and collapsing of roof. Examines area around coal pillar to erect roof support. Collects materials such as props, barricades to bamboo matting, hessian cloth, etc. Cuts them to required sizes and erects them to support roof. Couples up sand stowing pipes and signals to sand mixing chamber on surface to release flushing of sand and water. Observes sand filling operation till vacuum is tightly packed to roof face and rendered

safe from collapsing. Signals to surface sand chamber to stop release of slurry (mixture of sand and water) when filling is complete. May build stonewall packs to support roof. May recover supports.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.1800

Packer, Rock

Packer, Rock packs waste rocks compactly against roof after extracting operations in mines to prevent it from collapsing. Sorts waste rock from broken ore manually and packs them tightly against roof in drives, iron-cuts or in stopes (working places) to prevent collapse and loosening of hanging and broken ores. May assist Mucker in copper mines.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.1900

Sampler, Mining/Sampler Metal/Non-metal

Sampler, Mining marks metal bearing rock faces for cutting grooves, measures sample section, chisels out mineral samples from grooves and marks them for analysis. Determines and marks sample section according to rock surface and grades of mineralisation for groove cutting. Examines grooves cut by groove cutter along mineral bearing rock faces and gets defective cutting re-cut by groove cutter along mineral bearing rock faces and gets defective cutting re-cut by groove cutter. Checks groove distances from fixed points using ladder and rope.

Cuts samples from grooves and different section of mine to obtain representative samples. Bags and marks sample with details of location and sends them to laboratory for analysis. May estimate quantity and grades of deposit contained in marked position by taking necessary measurements. May plot location of samples taken from working faces on mine maps.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2000

Groove Cutter, Mining

Groove Cutter, Mining cuts groove of specified dimensions along marks made by sampler for extracting sample from metal bearing rock faces in mine. Marks grooves along mineralised portion of rock face and cuts grooves by chipping defective portion if necessary. Assists sampler in cutting samples. May scrub and wash grooves.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2100

Bratticeman

Bratticeman; Brattice Worker installs partitions in mine for regulating circulation of air through passages to working places. Cuts timber props to required size erects them along gallery at required place and fixes brattices (made from bamboo matting, canvas or mild steel plate) on them. May also undertake other kind of timberwork underground.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

May also erect masonry structure to control proper circulation of air.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2200

Driller, Hand

Driller, Hand makes shot holes of required depth in coal, metallic and non-metallic rock-faces using crowbar, drill rods and hammer. Examines marking for drilling on rock face. Sets crowbar against marking and gets it struck with heavy hammer by his co-worker, each taking his turn with hammer, uses water while drilling to cool drill rod and keep down dust, till hole of required depth is made. Cleans shot hole for charging with explosive. May drill shot hole using drilling machine. May drill hole singly using hand hammer and crowbar.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2300

Shaft Worker

Shaft Worker maintains cages, pulleys, winding gears, etc. and ensures compliance of regulations for working of hoisting system. Examines shafts and shaft fittings, guide ropes, pulleys, cages, etc. for efficient performance. Checks safety-hooks, safety plate, governor, fencing, brakes, signal, banking lever, head gear, pulleys etc. to ensure smooth working of shaft. Locates faults and undertakes minor repairs and replacements of defective parts as necessary and maintains their records. May perform other fitting operations of general nature.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2400

Banksman

Banksman; Ringer Bell; Ringer controls movement cage at shaft top and directs Winding Engine Driver and Onsetter for its raising and lowering with men or material by electrical or mechanical code signal system. Adjusts catch inside cage and closes cage fencing for securing safety of men or material. Signals to On setter and Winding Engine Driver by means of electrical buzzer or bell system for lowering and raising cage to transport men and materials at various levels. Observes movement of cage and sets keps (Bearing up stops for supporting cage or load at beginning or end of hoisting in shaft) by operating hand lever to rest or release cage from keps. Opens cage fencing and unloads contents. Checks fencing, keps, cage-doors, guide shoes, chains, signal and reports irregularities to superiors. May be designated as ONSETTER if engaged at shaft bottom and as BELLMAN or SIGNALMAN, MINES if engaged, at winze (shaft sunk from one level to another in mine) or at landing.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2500

Jackman

Jack Man; Cage Man, Mine gives signals for movement of cages used to raise and lower men, car and supplies between various levels and surface of mines and load and unload materials Directs

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

movement of cage by signalling to banks man or hoist Driver by means of electric bell or buzzer system. Runs loaded car to position near shaft and pushes them on to cage. Pulls empty cars from cage and runs them on to station siding for distribution in mines. May pull loaded cars of cage and replace them with empties.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2600 Scraper Driver, Mines

Scraper Driver, Mines; Scraper Operator, Mines; Scraper Loader Hoistman; Scraper Loader Operator operates electric or compressed air scraper machine or collect and deposit blasted rocks. Moves scraper into working place and sets it up securely on timber foundation. Sets snatch blocks (pulleys over which scraper cables run to change direction) and anchors them firmly to some post or side wall. Makes power connections and starts hoists. Manipulates levers according to signal to operate cables to hoist or lower scraper hoc and drag scraper along track to collect loose one or rock and dump them at specified place or into chute or car beneath. Reverses hoists, drags scraper back for another load and repeats process. Moves machine from place to place in mine for operation as required. Repairs or replaces broken ropes, lubricates pulleys and performs minor running repairs to hoist and equipment. May work as Mining Sirdar, if experienced and qualified, when required.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2601

Sprinkler and Other Vehicle Driver

Sprinkler and Other Vehicle Driver in mining industry is an ancillary job role. The individual assigned this role could be driving a sprinkler truck to control dust on a haul-road or could be driving mining personnel in an SUV or any other small truck used to haul material. Besides knowledge of driving fundamentals, the role requires the individual to know and understand the basic of mining operations, traffic rules to be followed in the mining area and safety guidelines for mining operations prescribed by DGMS. Vehicle drivers are also responsible for performing basic maintenance on the vehicle and to ensure that the safety systems in the vehicle are functional.

Qualification Pack Details:

QP NOS Reference MIN/Q 0409
QP NOS Name Sprinkler and Other Vehicle Driver
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2700

Shovel Operator, Mines

Shovel Operator, Mines, Shovel Driver; Rock Shovel Driver; Mechanical Shovel Operator operates pneumatic or electric shovel to load mine cars or tubs with wastes or mineral rocks blasted inside mine. Checks performance and safety points of shovelling equipment. Moves it to working place and advances it into pile of coal, ore or rock to be loaded for removal. Switches on and starts machine. Manipulates sets of hand levers and foot

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

pedals to force shovel into pile, lift it and dump contents into cars or tubs placed along side. Advances machine into pile as digging progresses and repeats operation to load material into car or tub. Moves machine from place to place in mine according to requirement of work. Lubricates, adjusts, and makes minor running repairs to machines as required. May mix rocks of different sizes or wet or dry ores to prevent jamming of crusher machine.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2800

Trammer, Mines

Trammer (Mines) Tram Pusher, Trolley Man pushes loaded and empty mine cars on track to specified places in mine or quarry with or without haulage engines. Sets track points and controls movement of cars or tubes using sprags (timber props or short pieces of wood, used to prevent wheels of train from revolving while pushing onward. Adjusts stop block and runway switches in track for taking safety measures May load ore or rock into cars at working faces. Is designated as SURFACE TRAMMER if working on surface and UNDERGROUND TRAMMER if engaged in underground work.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.2901

Wire Saw Operator

Wire Saw Operator operates a Wire saw machine which is used to cut large blocks

of stone out from the marble quarry. Wire saws are large machines that use diamond-impregnated beads on a cable to cut through marble, granite and other similar rocks. Wire saw is also used for squaring of the cut slab into square shaped blocks before transporting to the production plant. Operating a Wire saw is a specialized task that can be safely performed only with adequate training and experience. Wire Saw Operators are also responsible to ensure basic upkeep of the machine and safety in operations.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

8111.9900

Mines, Quarrymen and Related Workers, Other

Mines and Quarrymen and Related Workers, Other include all other workers engaged in mining, quarrying, well drilling and related activities, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8111
Title Miners and Quarriers

Family 8112

Mineral and Stone Processing Plant Operators

Mineral and Stone Processing Plant Operators operate and monitor machinery and equipment for processing rocks, minerals and stone to recover refined products for immediate use or further processing.

8112.0100

Crusher Operator, Mineral

Crusher Operator, Mineral; Crusher Attendant, Mineral operates power driven crushing machine to break coal ore or rock into smaller sizes for further processing. Starts crusher by manipulating levers. Adjusts gap between rollers or male and female cones of crushing jaws for desired size of lumps. Regulates flow of minerals from conveyor or chute and adjusts crusher as necessary. Prods larger lumps with bar to force them into crusher and breaks oversized lumps with sledge hammer. Maintains uniform flow of crushed mineral to screens or rolls for further sizing. May clean, lubricate and make minor repairs to crusher.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.0200 Pulveriser Operator

Pulveriser Operator operates machines and equipment to crush and blend coal of various compositions to obtain specified mixture used in producing coke: Turns valve to admit oil to mixer. Starts hammer mill, mixer, and conveyor equipped with harrow disks. Moves lever to adjust blade on feed tables to deliver coal to mixer. Observes operation of machines to detect malfunctioning, clogging, and unevenness of flow. Frees clogged coal by striking side of hopper with mallet. Adjusts or replaces screens and hammers in mill, using hand tools. Observes meters, gauges, and thermometer, and records temperature, oil consumption, tonnage mixed, and operating time. Cleans work areas, using broom. May open valves and start pumps to unload oil trucks. May test pulverised

coal for conformance to specifications. May crush specific composition of coal (without blending).

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.0300 Stamp Mill Operator

Stamp Mill Operator; operates stamp mill to crush gold ore to obtain gold concentrate. Sets tappets and adjusts stroke of stamp with spanners to obtain optimum crushing of ore in mortar box. Starts and maintains correct feeding of gold ore and water into mortar box for proper crushing. Discharges crushed ore pulp through screens of mortar box onto blankets. Directs flow of water over blankets for washing powdered ore coming from stamp mill. Changes gunny blankets from blanket tables at prescribed intervals and removes collected gold concentrate. Washes blankets in concentrating tank and collects gold from James concentrating table. Lubricates mill and performs minor repairs. Is designated as STAMPMILL MAN-IN CHARGE, if engaged in issuing stores, supervising other workers maintaining supply and pay roll records etc. May operate stamp mill for extraction of silver.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.0400 Cyanide Man

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Cyanide Man separates gold flakes out of crushed gold ore by treating ore in bath of cyanide acid. Pumps finely ground gold ore slime from collecting tanks to agitators. Adds specified amount of lime and cyanide acid. Opens valve on compressed air line to agitate slime. Uses simple hydrometer to check specific gravity of solution. Maintains agitation of slime until required specific gravity is attained. Filters off cyanide solution allowing formation of cake residue. Repairs pumps, tanks and related machinery. May issue stores, maintain pay rolls, discipline and security of section. May supervise work of other subordinates. May work as Precipitator.

ISCO 08 Unit Group Details:

Code 8112

Title Mineral and Stone Processing
Plant Operators

8112.0500 Precipitator

Precipitator exposes cyanide solution to zinc shavings in order to precipitate and recover gold still remaining in solution. Packs zinc box (extractor box) with zinc shaving. Pumps gold solution from filtration plant into clarifier tanks. Regulates flow of clarified gold solution from clarifier tanks into extractor boxes to precipitate gold by action of zinc. Adds lead acetate to extractors in required quantities to facilitate precipitation. Cleans out extractor boxes to recover precipitated gold. Chemically treats, washes and dries precipitated gold by operating vacuum pumps, etc. Treats residue slime with sulphuric acid to recover remaining gold.

ISCO 08 Unit Group Details:

Code 8112

Title Mineral and Stone Processing
Plant Operators

8112.0600

Washing Plant Operator

Washing Plant Operator, Coal operates different machines and equipment for sizing, cleaning, washing and preparing coal for sale or further processing. Checks operating condition of plant, machines and equipment, such as conveyor, crusher, agitator, elevator, wash box, blower, pump, feeder screen, core and refuse gate. Sets and adjusts them as necessary to have desired pulsation, correct performance, proper control of air, water and coal, etc. by observing readings on different meters and gauges and by regulating values on control panel. Adjusts flow of raw coal through them to separate slate rock and other impurities. Operates cone to mix sand and water in proper proportions to ensure correct specific gravity and observes operation. Tests sample of processed coal by weighing and simple physical and chemical tests to ensure correct percentage of ash content, and minimum rejection of usable coal. May conduct repairs of machinery. May perform only a portion of above duties and be designated as RAW COAL SECTION OPERATOR, FEED OPERATOR, CONE OPERATOR, REFUSE, GATE OPERATOR, etc. according to operation performed or machine handled.

ISCO 08 Unit Group Details:

Code 8112

Title Mineral and Stone Processing
Plant Operators

8112.0700

Stone Sawyer, Machine

Stone Sawyer Machine; Stone Sawing Machine Man saws blocks of stones into slabs of required size by sawing machine. Places or directs placing of blocks of stone on empty carriage or trolley with aid of helpers, hoist or cranes. Levels and fixes stone in cutting position with wedges, belts, metal plates, clamps and nuts etc. as required. Fixes required number of saw blades in sawing machine as needed, adjusts their distance according to size of slabs to be cut and tightens them with keys. Clutches machine or operates hand screw to lower down saw blades till they touch upper surface of block to be cut and pour or directs pouring of rough dry or wet sand on it. Starts machines and tends it to ensure proper sawing of block. Adjusts sawing by declutching or reclutching when it becomes heavy or light. Stops machine when stone is sawed, shuts off valve to stop flow of water and directs removal of slabs cut from saw carriage or trolley. Changes and adjusts saw blades as necessary.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.0800 **Stone Cutter, Machine**

Stone Cutter, Machine cuts stone to required size on stone cutting machine. Places stone slab on machine carriage and adjusts its position according to measurements. Tightens slab on carriage by operating pressure handle and switches on machine to revolve carborundum or diamond cutting wheel. Opens water valve to supply water on stone slab to serve as coolant and raises machine carriage by operating lever or hand wheel to bring cutting wheel in

contact with slab to be cut. Applies cut carefully and continues cutting till stone slab is cut to required dimension. May work on stone polishing and stone sawing machine.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.0900 **Stone Polisher, Machine**

Stone Polisher Machine operates stone polishing machine to polish surface of blocks or slabs of stone to required finish. Sets rough stone-block or slab on mud or suitable structure below grinding wheel of machine and places stone slab to be polished on it. Sprinkles water and spreads rough and or other abrasive all over its surface. Starts machine, sets machine wheel to revolve and slowly brings it down in contact with stone to be polished. Attends to machine and sprinkles water and abrasive as and when required till stone is polished to required finish. Switches off and stops machine wheel. Removes stone slab and washes rubbed surface with water. May polish stone slabs by fixing iron or carborundum blocks in grinding wheel of machine. May polish stones to high finish using chemicals and felt wheels. May work on stone saw and stone cutting machine.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.1000 **Pipe Machine Man, Stoneware**

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Pipe Machine Man, Stone Ware; Pipe Mill Operator, Stone Ware operates pipe making machine to make stone ware pipes of required dimensions. Checks and sets appropriate die in machine according to size of pipe to be made. Directs helpers to feed plastic clay into machine hopper and starts machine. Sets machine feed and speed to force clay into bell mechanism and die set in machine and watches automatic formation of required length of pipe at regulated speed. Unlocks machine table by operating lever and stops machine to release and cut extruded pipe by pushing cutting wire of machine through it. Tilts socket to facilitate removal of finished pipe for further processing. Oils socket and outlet die to prevent sticking of clay to them. May test texture of clay visually and suggest changes for moistening. May do minor running repairs to machine.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.1100

Thread Cutting Machine Operator, Stoneware

Thread Cutting Machine Operator, Stoneware operates thread cutting machine to cut external or internal thread screws on stone ware pipes. Fits appropriate thread cutting die in machines. Lifts and sets pipe in wet condition to spindle or roller of machine with aid of helper, hoist or crane. Starts machine and cuts grooves or threads at one end or both ends of pipe as required by pressing thread cutting die on it. Cuts pipe to required length by operating pipe cutting attachment fitted to machine. Ensures correct finish of threads cut and

removes pipe from machine. Oils and lubricates machine. May cut threads on pipe manually using metal template. May operate pipe machine to make pipes.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.1200

Cone Operator (Mine and Quarry)

Cone Operator (Mine and Quarry) tends cone (gravity device) to separate slate and rock from coal: Presses buttons to start conveyor and regulate flow of material into top of cone. Turns valve to regulate flow of water into bottom of cone and maintain specified pressure to carry coal off with overflow while rock and slate fall to bottom. Pulls lever to open slate gate at bottom and draw off impurities.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

8112.9900

Mineral and Stone Processing Plant Operators, Other

Mineral Ore and Stone Processing Plant Operators, Other include all those who operate and monitor machinery and equipment for processing mineral ore and stone not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8112
Title Mineral and Stone Processing
Plant Operators

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family 8113

Well Drillers and Borers and Related Workers

Well drillers and borers and related workers position, assemble and operate drilling machinery and related equipment to sink wells, extract ore, liquids and gases or for a variety of other purposes.

8113.0100 Well Drillers, Petroleum and Gas

Well Driller, Petroleum and Gas operates rotary type of drilling plant for sinking petroleum and gas wells. Manipulates levers and throttles to control speed of tools set in rotary table and to regulate pressure of tools at bottom of borehole as indicated by gauge. Connects and disconnects sections of drill pipe as they run into or out of well. Selects drill bits according to nature of strata encountered and changes them when blunt or when strata change. Uses special tools to retrieve broken or lost equipment from borehole. Inspects cores or cuttings while drilling to determine nature of strata being encountered. Manipulates levers, pedals and brakes to control machinery which supplies power for lowering or raising drill pipe and casing. Checks operation of slush pumps to ensure that fluid which cools bit, removes cuttings and seals wall of hole with clay is circulating properly and is of proper consistency. Controls flow from well by capping it or by regulating valves. Supervises work of assistants and maintains prescribed records. May set up plant.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and Related Workers

8113.0200 Derrickman

Derrickman; Rigman Petroleum and Gas erects drilling rigs, fits the cables through pulleys and blocks and assists Well driller in lifting and laying down tubing and removing drilling pipes. Sets crown blocks (pulley support connecting derrick posts at top)in position with hoisting beams. Strings up cables through to lift or lower drill pipes. Cleans splashed oil from derrick floor. Assists drilling crew in installing oil gas separator and gas line and in dismantling equipment on completion of work or as required. Cleans oil and maintains pulleys block etc. May operate tongs, slips and spinning rope at drilling stage. May be designated as Top man if works on monkey board on rig at height of about 100 ft. from ground level.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and Related Workers

8113.0300 Mudman

Mudman prepares drilling mud fluid to plastic mixture of compounded clay, chemicals and water of required consistency by mixing clay and chemicals in required proportions and controls mud circulation pumps for flushing out drill cutting and cooling drill bites. Mixes clay, chemicals and water in required proportions as instructed by MUD SUPERVISOR to soften earth formation during drilling operations. Checks weight and viscosity of mud at short intervals and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

controls mud circulation pump s for flushing out drill cuttings and cooling drill bits. Maintains record of mud transactions and stock of chemicals used. Collects flush and operates vibrating screen to remove silts and well cuttings. May clean channels and tanks. May work on wells other than petroleum and gas.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and
Related Workers

8113.0400

Cementer

Cementer conducts mixing of cement in proper consistency and cementing annular spaces between casings and sidewalls of well. Rigs up high pressure lines, makes arrangements for cementing and connects hopper section tank and other pipelines. Obtains information regarding condition of strata to be cemented from Well Driller to determine quality and quantity of cement to be used. Mixes cement, limestone, clay, water and other chemicals to form slurry. Pumps slurry under pressure to seal space between steel casing and side wall and decides time required for setting of cement. Keeps record of cement used. Studies graphical reports and informs well conditions to proper authorities.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and
Related Workers

8113.0500

Well Puller

Well Puller removes, repairs and replaces rods, casings and tubings of producing wells, cleans and services them with special tools and controls flow of oil or gas according to pressure charts. Carries required tools, travelling block and block line, etc. to work site. Attaches cable to top of pump rod or casing and operates winch mounted on tractor to pull them out for cleaning, repairs or replacements as required. Disconnects each section of pump rod and casing for cleaning, straightening and repairing according to nature of defects noticed. Runs packer (plug device) into well to control flow of oil, water or gas during well pulling operations. Lowers swabber into well to clear mud from screens at bottom of well and to establish flow of oil. Records well pressure by lowering pressure-recording devices into it and interprets pressure charts. Keeps well Puller Supervisor informed of defects and repairs done in pump and casing. May measure and record tubing length. May recover tubing and rods from abandoned well and plug it with cement.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and
Related Workers

8113.0600

Scaperman

Scaperman scrapes off and pulls out wax from inside tubing by operating power driven scraper. Fixes scraping tools to scraper with assistance of Rigman and places tractor or winch by side of well. Operates scraper by tractor or winch to scrap off wax from inside tubing. Pulls out scrapped wax from inside of drill pipes to keep well open for production. May

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

attend to normal maintenance of equipment.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and Related Workers

8113.0700

Gauger

Gauger controls flow lines in oil head tanks, dries off accumulated moisture by operating steam heating valves and delivers oil to oil pumps. Takes dip readings of various tanks before and after bleeding of water and records them. Operates steam heating valves of tanks to dry off accumulated moisture and intimates dip readings to Gas Supervisor either on phone or through messengers. Opens delivery valve of well head tank to deliver oil to pump house, maintains record of oil dispatched from each well on dispatch tickets and sends them to Production Clerk. Ensures that tank does not overflow. Reports tank and pipe condition to proper authorities.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and Related Workers

8113.0800

Well Driller, Machine (Other than Petroleum and Gas)

Well Driller, Machine (Other than Petroleum and Gas) sinks, bores and develops well at selected site by operating power driven drilling machine. Collects sample of soil from selected site of boring for analysis. Selects suitable drilling bit (diamond for hard stone and steel for soft

rock and hard earth) according to strata of earth to be bored. Hoists tabular casing over selected site. Starts machine and drills earth strata to drive casing into it. Sinks additional casing when required into well. Sends soil and rock samples for analysis while boring. Removes unnecessary pipes from bored well. May insert water jet alongside of drill head to soften earth and make drilling easier. Removes sludge or debris from bore hole by operating pump or other equipment.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and Related Workers

8113.9900

Well Drillers and Borers and Related Workers, Other

Well Drillers and Borers and Related Workers, Other include workers who erect and operate drilling machinery and equipment and perform related tasks in the sinking and operation of well not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8113

Title Well Drillers and Borers and Related Workers

Family 8114

Cement, Stone and Other Mineral Products Machine Operators

Cement, Stone and Other Mineral Products Machine Operators operate and monitor machines for manufacturing and finishing precast concrete, bitumen, and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

stone products, and making cast stone for building purposes.

8114.0100

Polishing Machine Operator (Mosaic)

Polishing Machine Operator (Mosaic Tiles) operates polishing machine fitted with revolving grinding discs to polish mosaic tiles to high finish. Fits appropriate grinding (carborundum) bricks to rotating discs of machine. Spreads layer of cement solution of required shade over floor surface and sprinkles floor area with water. Connects machine to power supply and switches on machine to rotate revolving discs. Runs machine slowly over entire surface of tile floor to grind and polish it. Changes grinding stones of machine as required. Repeats sprinkling of cement liquid over surface for settling between tile joints and polishes floor surface again using finer type of grinding stone. Washes polished surface with water and ensures required finish. Removes grinding stones and fits felt or cloth pad to machine. Sprinkles oxalic acid powder with water over polished surface and continues polishing to secure glossy finish on polished surface. Cleans and polishes corners, edges of room with grinding stones. Oils and cleans machine periodically. May attend to minor repairs to machine.

ISCO 08 Unit Group Details:

Code 8114

Title Cement, Stone and Other Mineral Products Machine Operators

8114.0200

Batching and Mixing Plant Operator (Construction)

Batching and Mixing Plant Operator, Construction; Batchingman, Construction; Concrete Mixer Plant Operator operates power-driven central mixer plant that prepares batch and mixes concrete. Starts power unit and rotation of mixing drum; opens hopper doors of gravel, sand and cement storage bins to allow these materials to flow into scale hoppers for automatic weighing; opens scale hopper doors to allow weighed materials to pass into mixing drum in required proportion; opens valve allowing correct amount of water to flow from measuring tank into mixing drum; allows drum to rotate for specified time for proper mixing of materials into concrete; opens discharge chute to empty concrete from mixing drum into bucket, conveyor or other carrier; controls batch timer and records number of batches; cleans mixer. May repair and maintain mixer and power unit. May supervise helpers.

ISCO 08 Unit Group Details:

Code 8114

Title Cement, Stone and Other Mineral Products Machine Operators

8114.0300

Concrete Mixer Operator

Concrete Mixer Operator operates small portable power-driven concrete mixing machine to mix dry cement, sand, gravel and water for making concrete or cement mortar. Starts motor and rotation of mixing drum; feeds materials (sand, gravel and cement) in proper proportion into mixing drum, using shovel or by manipulating lever that controls feeding; admits measured amount of water into drum; allows drum to rotate for specified time for proper mixing of materials into concrete; discharges concrete from drum by tilting drum or by opening discharge

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

chute; cleans interior with water and removes adhering concrete. May undertake running repairs.

ISCO 08 Unit Group Details:

Code 8114

Title Cement, Stone and Other Mineral Products Machine Operators

8114.0500

Cast Stone Maker

Cast-Stone Maker; Artificial-Stone Maker performs one or more hand or machine tasks in making of artificial stone which simulates natural stone. Mixes materials, such as water, cement, gravel, granite chippings, slag, coke, breeze or stone dust in required proportions by hand or machine. Fills moulds with mixture, allows mixture to harden and removes it from mould. Finishes cast stone by smoothing surface with sand-stone, polishing with emery and buffering wheel and levelling corners and edges. May be designated according to work performed.

ISCO 08 Unit Group Details:

Code 8114

Title Cement, Stone and Other Mineral Products Machine Operators

8114.0600

Lead Brush Maker (Abrasive Wheel)

Lead Bush Maker (Abrasive Wheel) makes lead bushes for abrasive wheel by running molten lead around metal core inserted into centre hole. Places abrasive wheel over chuck-like platform of machine; presses foot pedal of machine to lift spindle disc device to fit into hole of emery wheel; positions emery wheel correctly and fastens it to chuck by

tightening bolts and nuts. Sets metal upper plate with opening over hole to emery wheel; pours molten lead from furnace through hole of upper plate into emery wheel hole to form bush round it; allows lead to cool down and then releases foot pedal to drop central spindle; removes cooled upper plate from emery wheel; loosens chuck nuts and bolts and removes bushed abrasive wheel. Maintains power heated lead furnace or kettle at prescribed temperature to keep lead in molten condition.

ISCO 08 Unit Group Details:

Code 8114

Title Cement, Stone and Other Mineral Products Machine Operators

8114.0700

Fettler (Brick and Tile)

Fettler (Brick and Tile) grinds and sands ceramic products, such as clay slabs, refractory tiles, ceramic tiles, and bisque tiles to remove defects, press marks, or rough spots: Grinds, brushes, or scrapes surface of ceramic product to remove rough spots, press marks, and defects, using power grinder and wire or stiff brush. Smoothens (fettles) edges and surface of product, using sandpaper or handstone. Discards broken or poorly pressed tile. Stacks ceramic tile or clay slates in specified pattern on boards, plates, trays, or in saggers. May measure dimensions of tile for conformance to specifications, using gauge. May tend machine that automatically fettles tile.

ISCO 08 Unit Group Details:

Code 8114

Title Cement, Stone and Other Mineral Products Machine Operators

8114.9900

Cement and Other Mineral Products Machine Operators, Other

Cement and Other Mineral Products Machine Operators, Other include workers who operate and monitor extrusion, moulding, mixing, grinding and cutting machines which manufacture and finish various pre-cast concrete and stone products, or which make cast stone for building purposes not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8114

Title Cement, Stone and Other Mineral Products Machine Operators

**Group 812
Metal Processing and Finishing Plant Operators**

Metal Processing and Finishing Plant Operators, operate and monitor single function process control machinery and equipment to control the conversion, processing and finishing of mineral ores and metals.

Occupations in this Group are classified into the following Families:

8121 Metal Processing Plant Operators
8122 Metal Finishing, Plating and Coating Machine Operators

**Family 8121
Metal Processing Plant Operators**

Metal Processing Plant Operators, operate, monitor, adjust and maintain, single process machinery and equipment to process and convert mineral ores and refine, harden, roll and extrude metals.

8121.0300

Larry Car Driver, Furnace

Larry Car Driver, Furnace; Scale Car Driver, Furnace operates and loads larry car (electric car run on track) with raw material (limestone, iron-ore, etc.) as per instructions of Stock House Foreman or Control Man Blast Furnace from respective bunkers and unloads the Minto skip for charging into blast furnace. Receives instructions from Stock House Foreman regarding sequence, proportion and rate of charging of different raw material into blast furnace. Drives car to respective bunkers and mechanically loads container (fitted to car) with proper quantities of raw material keeping watch on weighing scale mounted on car. Drives car to unloading platform and unloads contents into skip either by tilting or drop bottom system. Keeps Stock House Foreman and Control Man informed of charging rate. May also maintain bunker and charging rate account.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

**8121.2300
Shearing and Upcoiler Operator (Non-Ferrous Metal)/Coil Operator**

Shearing and Upcoiler Operator (Non-Ferrous Metal) sizes and coils plates and sheets to required specifications by up-coiling machine. Sets shearing distance and rolls of up coiling machine. Presses paddle to shear one end of plate or sheet. Starts rolls of coiling machine and feed, plate or sheet into collar of rolls by metal rods, tongs etc. Shears tail end of plate or

sheet and operates lever to eject coil out. May set shearing blade and do running repairs of up-coiling machine. May also maintain machine log and lot (material) tickets.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.2400

Flattening Machine and Flying Shear Operator (Non-Ferrous Metal)

Flattening Machine and Flying Shear Operator (Non-ferrous Metal) flattens and shears coiled strips to required dimensions by flattening machine and flying shear. Sets shearing distance, adjusts roll gaps (mechanically), feeds coil strips into roller, checks thickness of flattened strip by micrometre or gauge before flying shear finally cuts strip to required size, maintains record of strips cut. May undertake minor repairs.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.2500

Slitting Machine Operator (Non-Ferrous Metal)

Slitting Machine Operator (Non-ferrous Metal) operates slitting machines to cut edges lengthwise by disk cutters to get correct width. Measures with steel tape or scale and sets distance of cutters fitted on two electrically operated shafts to required width. Starts machine, feeds coiled sheet through guides on to cutters (collected at other end by Labourers). May operate drum-coiling machine by switch

for coiling sized sheets. May also maintain machine log and lot (material) tickets.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.2700

Roller, Second Hand, Strip Mill (Non-Ferrous Metal)

Roller, Second Hand, Strip Mill (Non-Ferrous Metal) feeds coil strips in to roller by hand, pneumatic or other device, and finally coils finished strips in drum coiler (drum type machine). Feeds coil-strip through guides in to do coiler (Mechanical device on rolled system for decoiling), lowers bridle (Mechanical attachment) by lever for applying tension on coil strip (by means of compressed air operated rollers) and feeds strip for roughing. Guides strip in between roller during re-rolling operations and on return of re-rolled strip operates drum coiler for final coiling.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.3000

Charger, Reverberatory, Pulverised Coal Fired/Reverberatory Furnace Operator

Charger, Reverberatory Furnace, Pulverized Coal Fired cleans and sets furnace for charging and charges raw material (Scrap iron, pig iron and steel scrap) in to furnace for melting. Removes sticking slag, junk, etc. from furnace by hand tools. Seals holes and doors of furnace (tapping hole, slag door, etc. with clay). Repairs molten metal runner for tapping. Keeps material ready for charging

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

on trolley in front of charging door. Opens charging door and pushes the raw materials into furnace on receipt of instructions from Furnace man, Reverberatory. Closes charging door, seals it and hands over fully charged furnace to furnace man Reverberatory. May do minor repairs of furnace and chimney under guidance of furnace man Reverberatory.

ISCO 08 Unit Group Details:

Code 8121
Title Metal Processing Plant Operators

8121.3100

Melter Reverberatory-Furnace, Pulverised Coal Fired/Reverberatory Furnace Operator

Melter Reverberatory Furnace, Pulverized Coal Fired; Fireman, Reverberatory Furnace, Pulverized Coal Fired prepares furnace, lights fire and controls blast and feeding of pulverized coal in to furnace for maintaining required temperature. Sets log in side furnace and ignites them with flaming torch. Starts machine for feeding furnace with pulverized coal. Starts secondary blower after furnace acquires necessary temperature. Adjusts draft of chimney as per instructions of furnace man Reverberatory. Takes out slags through slag door, stirs metal and opens tap hole by metal bar for tapping molten metal. Places slag trap before slag starts flowing into molten metal. Controls blast and feeding of pulverised coal under instructions from Furnace man, Reverberatory. May draw out samples at intervals as required by Furnace man Reverberatory.

ISCO 08 Unit Group Details:

Code 8121
Title Metal Processing Plant Operators

8121.3300

Slag Flusher

Slug Flusher; Furnace Assistant, Cupola removes slag, solidified metal and junk coke from furnace by poking through slag holes. Cautions other workers and opens slag hole by metal poker. Pokes and rakes furnace by metal poking bars, adjusts blast and blows off slag, and watches slag condition. Plugs slag hole with clay after blowing off. May extinguish cupola fire. May also charge mechanized furnace.

ISCO 08 Unit Group Details:

Code 8121
Title Metal Processing Plant Operators

8121.3301

Casting or Foundry Assistant/Helper

Casting Helper will be involved in cleaning the slag, supporting in pre casting and post casting operations and storing the output at designated place.

Qualification Pack Details:

QP NOS Reference	ASC/Q3201
QP NOS Name	Casting or Foundry Assistant/Helper
NSQF Level	2

ISCO 08 Unit Group Details:

Code 8121
Title Metal Processing Plant Operators

8121.3701

Heat Treating Furnace Operator

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Heat Treating Furnace Operator heats metals in closed furnace for heat treatment such as tempering, hardening, normalizing, annealing, etc. Places metal charges in furnace trays, box or arranges them in line by crane or other suitable device. Pushes charges inside furnace by hand, winch or other device. Closes furnace door. Switches on current for generating heat inside furnace. Ignites burner and sets blower for flow of fuel and air in case of oil or gas fired furnace. Sets and watches temperature controlling instruments. Heats charges to requisite temperature. Opens furnace gate and extracts charges electrically, mechanically or manually with tongs, hooked bars etc. May do preheating in closed non-conducting cases by stoves, gas or electric furnace and be designated as PRE-HEATING FURNACE OPERATOR.

Qualification Pack Details:

QP NOS Reference	ASC/Q3901
QP NOS Name	Heat Treatment
	Technician/Furnace Operator

NSQF Level

4

ISCO 08 Unit Group Details:

Code	8121
Title	Metal Processing Plant Operators

8121.3801

Assistant Casting Technician

Casting Technician manages the specifications of the molten metal, setting up and operating the casting machinery and forming and finishing the metal cast

Qualification Pack Details:

QP NOS Reference	ASC/Q3202
QP NOS Name	Casting Technician
	L3

NSQF Level

3

ISCO 08 Unit Group Details:

Code	8121
Title	Metal Processing Plant Operators

8121.4200

Die Casting Machine Operator

Die Casting Machine Operator operates die-casting machine to make zinc, aluminium and alloy castings for gears, carburettor bodies, machinery parts, equipment, etc. Charges furnace with slabs of metal and adds specified quantity of alloy. Transfers molten alloy to heated reservoir of machine with crane or hand ladle. Removes metal fragments from die surfaces and brushes cavities with compound to prevent casting from adhering to die. Regulates valves to heat furnace, circulate water through die and to force hot metal in to die. Move levers to open and close to halves of water-cooled die. Hooks completed casting from die with steel wire and cools it in water.

ISCO 08 Unit Group Details:

Code	8121
Title	Metal Processing Plant Operators

8121.4201

Pressure Die Casting Operator (PDC)

PDC Casting Operator manages the specifications of the molten metal, setting up and operating the casting machinery and forming and finishing the metal cast

Qualification Pack Details:

QP NOS Reference	ASC/Q3204
QP NOS Name	Pressure Die Casting Operator (PDC)
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.4300

Casting Machine Operator (Non-Ferrous Metal)

Casting Machine Operator (Non-Ferrous Metals) sets up and operates continuous casting machine to produce tubes and rods. Threads graphite die into bottom of crucible, which holds molten metal during casting process. Places water jacket around die and connects water lines. Inserts metal bar (starting tip) through die into crucible where it provides weld with molten metal. Inserts metal extension rod through driving roller and threads it to starting tip. Regulates speed of rollers to draw extension rods, starting tip, and molten metal through die in continuous casting process.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.4400

Casting-Operator Helper (Nonferrous Metal)

Casting-Operator Helper (Nonferrous Metal) assists CASTING MACHINE OPERATOR (Nonferrous Metal) in casting aluminium alloys into ingots: Places distributing trough between furnace tap hole and mould. Positions baffle plates, screens, and control pins in trough, using hand tools. Takes sample of molten metal for subsequent analysis. Skims dross off molten aluminium in holding furnace, using drag rake. Inserts thermocouple into mould and records temperature of ingot. Examines ingot for cracks, using

reflectoscope. Stencils identification numbers on ingots. Hooks cable to ingot for removal by OVERHEAD CRANE OPERATOR.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.4500

Spun Pipe Machine Operator

Spun Pipe Machine Operator operates spinning machine to make spun metal pipes. Moves pipe spinning machine under spout of ladle containing molten metal and allows metal to flow into vertical pipe mould; moves machine back to normal position and starts mould spinning rapidly to evenly distribute metal and eliminate gas bubbles. Allows metal to set and removes pipe from mould, using pipe putter. Gets mould filled with required quantity of molten metal.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.4600

Core Maker, Machine

Core Maker, Machine makes cores, using machine, for placing in mould to have designed holes in metal castings. Selects die and spiral conveyor screw and fastens them to machine. Mixes sand and binding material and packs mixture into feed box of machine. Starts motor or turns crank by hand to rotate screw and to take mixture from box and press it through die to form core. Cuts off core as required, repairs damaged surfaces and passes it on for baking or drying in oven or heated

chambers. May perform some tasks involved in making cores by hand.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.4700

Annealer, Metal

Annealer, Metal anneals (softens) metals by heating and cooling, for easy-machining, rolling, bending, etc., and for relieving internal stresses caused by working or by unequal contraction in casting. Starts furnace and heats material in it up to required temperature for specified time depending upon type and size of material. Stops furnace and allows material to cool down inside it. Anneals copper by heating and immediately quenching in water. May do pack annealing by putting material in sealed box and by heating and cooling it in furnace. May cool material in sand, lime or ash if working on open furnace. May be designated as NORMALISER, if engaged in normalizing (removing stresses) fatigued metal parts by process of repeated heating and cooling in air.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.4800

Hardener, Metal

Hardener Metal hardens metal articles such as tools, machine parts etc. for tempering and other purposes. Puts them in pre-heating furnace for heating. Controls furnace temperature and heats charges to prescribed temperature depending upon type of steel. Allows

charges to remain in furnace for required period according to size, composition and type of steel. Transfers charges to hardening furnace and controls its temperate to prescribed degree according to size, composition and type of steel. Allows charges to remain there for specific time. Switches off furnace, takes out charges by tongs or other suitable device, quenches them in water or oil or cools them by air blast according to type of steel. May harden material by salt bath (molten cyanide, lead, nitrates, etc.) or by single heating and quenching or cooling process.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.4900

Temperer, Metal

Temperer, Metal removes brittleness caused by hardening of material (Tools, machine parts, etc.) by re-heating and quenching or cooling process. Puts hardened material inside furnace and controls its temperature depending on type of steel. Allows material to be heated for specific time according to purpose of tool. Switches off furnace, withdraws materials and quenches or cools them according to type of steel.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.5200

Looper, Metal Drawing

Looper, Metal Drawing passes rod through series of rolls to reduce it into wire of required specifications. Watches

approach of rod, holds it with pair of tongs and directs it through guide into roll. May remove scraps if necessary and also assist in setting height and different passes (steel dies of various sizes) of rolls. May be designated as REPEATER, ROUGHING LOOPER or HEAD ROUGHER, according to stage of work.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.5500

Seamless Pipe and Tube Drawers

Seamless Pipe and Tube Drawer draws ferrous and non-ferrous tubing of specified internal and external diameter by machine. Places rough tube in position on draw bench. Sets die (tapered plug) in centre of hole in die block. Pushes or pulls end of rough tubes through die block and secures it with tongs to or carriage in motion, pulling tube over plug to travelling chain or moveable carriage. Sets chain or carriage in motion, pulling tube over plug, to determine internal and external diameter. Stops chain or carriage when length is drawn and removes tongs from tube. Repeats operation until specified diameter is obtained. May be designated according to type of tube drawn or metal used.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.5600

Extrusion Press Operator

Extrusion Press Operator; Extruder Operator (Metal) sets up and operates hydraulic extrusion press to shape

seamless tubings and rods of round, flat or irregular cross sections from hot billets. Receives necessary work schedule and examines drawings and other specifications. Selects dies, billet container and mandrel, fixes them in press and sets alignment, temperature etc. as required. Checks and adjusts pressure of hydraulic, water and other pumps for necessary operation. Directs removal of hot billet from heating furnace and its dropping in to billet container. Orders positioning of upsetting device above billet container, and lower ram of press to upsetting device for spreading billet until it fits snugly in to container. Moves hand and foot levers to cause ram to descent and press billet through dies and to regulate speed to extrusion for prevention of tears in metal and adherence of metal to container walls. Raises ram to top of stroke and lowers cut off device to shear of residue and free extruded tube or selection from die. Maintains record of pump pressure, number of tubes and sizes formed, kind of metals extruded etc. as prescribed. May operate vertical or horizontal extruding press. May do minor repairs to machine.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.5800

Metal Drawing Operatives

Metal Drawing Operatives perform variety of routine and low skilled tasks in making or drawing of wire from billets such as loading of billet into furnace, pushing hot billets to discharge doors, opening furnace discharge door and pushing billets to pinching rolls, lifting and guiding rods into loping channels, cutting samples, oiling, cleaning, etc. and may be designated as

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Cold Billet Pusher, Hot Billet Pusher, Furnace Hooker, Finishing Hooker, Sample Cutter etc.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

8121.9900

Metal Processing Plant Operators, Other

Metal Drawers and Extruders, Other include all other metal drawers and extruders such as those engaged in assisting operation of hydraulic extrusion press, assisting in setting dies for wire drawing, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8121

Title Metal Processing Plant Operators

Family 8122

Metal Finishing, Plating and Coating Machine Operators

Metal Finishing, Plating and Coating Machine Operators operate and monitor equipment which finishes, plates and coats metal articles or parts, in order to give them improved resistance to corrosion and abrasion, for decorative purposes, or to impart electrical or magnetic properties.

8122.0100 Electroplater

Electroplater gives coating of gold, silver, nickel, chromium, copper etc. of required thickness to metal parts by electrolytic process. Examines strength of metallic

solution and sets anode plates (positive terminal) in solution. Suspends de-greased components well dipped in side plating solution and connects cathode (negative) to it. Regulates current and allows components to remain dipped in solution for specific period depending upon type and thickness of plating required. Removes components and swirls them in hot and cold water baths. Dries them in sawdust or centrifugal air dryer. Transfers components to unrigging rack or other specified place for policing. May prepare plating solution under guidance of shop supervisor. Is designated as GILLDER if engaged in gold plating and ANODISER if colours aluminium and light alloys article using specific chemical solutions.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.0101

Surface Treatment Technician

Surface Treatment Technician is responsible for conducting electroplating, powder coating and Anodizing operations as per the product and the customer requirement to ensure that the surface of the metallic body becomes resistant to chemicals, moisture and other wear and tear.

Qualification Pack Details:

QP NOS Reference ASC/Q3801

QP NOS Name Surface Treatment
Technician Level 4

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.2000

Enameller, Chemical

Enameller, Chemical applies thin film of enamel on metal components by dipping in enamelling solution and drying them in ovens. Checks quantity and quality of enamel in glazed porcelain bath (vat). Dips components in bath and suspends them in mechanical conveyor passing through closed drying oven. Checks components after drying and repeats process to ensure good finish. May dip and dry components manually. Is designated as LACQUERER or JAPANER if engaged in manually applying solution of film forming substances or Black Japan Varnish. May also apply enamel or other solution by brush or spray.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.3000

Reeling Machine Operator

Reeling Machine Operator, Metal Drawing tends to continuous supply of wire to lead bath for coating and reeling of finished wire. Mounts reels on shaft and draws wires through lead, acid, and washing baths to other side. Fixes ends to empty reels mounted on electrically driven shaft. Starts motor and watches smooth running of wires. Changes reels and joins ends of wires as and when required. Stops motor and pulls out wire in case of breakage. May be known as REEL OPERATOR, BACK SIDE, and REEL OPERATOR, FRONT SIDE, according to position of work.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.3500

Galvanizer/Operator-Electroplating, Galvanising

Galvanizer applies coating of zinc on ferrous articles by dipping them in molten zinc. Checks and controls quantity, quality and temperature of acid (hydrochloric acid), flux (zinc chloride) and zinc baths. Preheat articles if necessary and dips or passes them either manually or mechanically through, acid, water, flux and zinc baths successively at controlled speed. Skims dirt from baths and continues operation with necessary adjustment of solution, temperature etc., ensuring regular and uniform coating. May similarly apply tin coating using palm oil as flux and be designated as TIN PLATER or TINNING MACHINE OPERATOR. May regulate temperature by gauges and by colour of melting metals.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.5500

Metal Sprayer

Metal Sprayer sprays metal on worn out metal part either for increasing size or for coating them. Fixes part in lathe, fastens spray gun in tool post of lathe, pushes wire feed through hole in spray gun, connects rubber pipe with oxygen, acetylene and compressed air container through respective nozzles of gun and regulates valves for their correct supply. Ignites mixture with flint. Starts lathe to revolve part for uniform application of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

metal, adjusts wire feed, moves gun to and fro for even spray of metal on portion to be sprayed and checks part from time to time for size and uniform coating. May use different type of fixtures and may manually operate spray gun.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.6000

Sample Checker, Metal Making

Sample Checker, Metal Making; Sampler, Metal Making checks samples of metal under production in furnace, rolling mill, foundry section, etc. by sight, gauges or instruments to ensure these are according to specifications. Checks blooms, billets, forgings, metal castings etc. in production in furnace, rolling mill, forging, foundry or other metal making sections by sight, gauges, measuring devices, crack deflectors and other necessary instruments Ensures correct dimensions, weight, soundness and absence of blow holes, irregular formation, etc. as per specifications and tolerances. Approves or records defects observed and suggests rectifications or rejections as necessary. May be designated as SAMPLER, BLAST FURNACE; VIEWER, ROLLING MILL; VIEWER, FORGING, CHECKER, FOUNDRY; etc. according to section and type of work done.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.6200

Shot Blaster

Shot Blaster cleans metal surface by spraying steel grits on it at high pressure by means of compressed air. Lays articles to be cleaned in side shot blasting chamber, gets covered completely with protective clothing fitted with respiratory arrangements. Regulates air pressure and flow of steel grits, holds hose fitted with nozzle over articles, opens nozzle and sprays steel grits over them at high pressure for required period of time. Checks metal surface from time to time for finish and repeats process if required, is designated as SAND BLASTER if uses sand instead of steel grits.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.6700

Picker

Picker removes foreign matter and cleans both ferrous and non-ferrous articles by dipping them in succession in acid and water baths. Loads articles in cradles or in some hooking arrangement and dips them in acid bath or tank. Agitates bath or tanks by moving articles manually or mechanically for few minutes depending on type and condition of material. Transfers articles mechanically or manually to water bath or tank and washes acids off by stirring them in bath or tank. May use more than one acid bath or tank of varying concentration. May also dip articles in alkaline tank for neutralizing acid effect.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.6900

Hardness Tester, Metal

Hardness Tester, Metal checks hardness of metal by operating hardness testing machine. Places metal to be tested on table of machine. Attaches specified weights to give required pressure and fixes steel ball or diamond cone tester in machine depending upon type of metal to be tested and machine used. Operates lever to automatically press steel ball or diamond cone with prescribed force on metal surface and make deep impression, a dent on it. Reads hardness registered by machine or from chart and records it. Approves or rejects tested metal according to standard prescribed. May keep record of number and nature of articles tested. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7000**Speeder Machine Operator (Abrasive Wheel)**

Speeder Machine Operator (Abrasive Wheel) Abrasive Wheel Tester speed tests abrasive wheels on electric testing machine over normal operating speed to ensure that wheels are free from cracks. Opens protective hood of machine and fits securely finished abrasive wheel on hub of electric testing machine by tightening nuts and bolts using flanges, washers and bushes where necessary, closes hood door; adjusts meter and arbour of wheel to set machine for specified number of revolutions; starts and runs machine at specified test speed for specified test period; observes meter reading to check and ensure that wheel disc is revolving at set speed without

cracking; stops machine after set period of running or earlier if disc cracks (indicated by cracking noise). Opens hood door and removes discs from spindle after bringing it to rest. Places tested discs at specified point. May stencil on wheel working speed in r.p.m.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7100**Sizing Machine Operator (Abrasive Wheel)**

Sizing Machine Operator (Abrasive); Sizer (Abrasive) operates automatic sizing machine to coat glue on abrasive coated cloth or paper. Fills glue tank of machine with glue; draws off abrasive coated paper or cloth roll from drying chamber of abrasive making machine and feeds it into feed rolls of sizing machine; observes operation of drawing and passing of abrasive coated cloth or paper through rolls above glue container where thin layer of glue coating is applied to abrasive coated material for fixing it, and thereafter through drying chamber to take down machine; stops machine, if paper or cloth gets stuck up, releases blocking and re-starts machine; reports to superiors if machine does not function properly. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7200**Abrasive Coated Cloth and Paper Maker**

Abrasive-Coated Cloth and Paper Maker; Coating Flint Operator (Abrasive) roll in machine; draws end of paper or cloth roll through guide rollers of machine for feeding it with material; checks and ensures that glue container and abrasive grain hopper of machine are full with glue and abrasive material, starts machine and ensures drawing of paper/cloth through rollers and application of glue on its desired face proceeds correctly; observes passing of glued paper/cloth through series of rollers over electric grain chamber where grain is sprayed to glue portion of paper/cloth by electro-magnetic device; opens glue tap as necessary to maintain steady supply of glue in glue container; stops machine if abrasive coated paper/cloth gets stuck up, cleans it and restarts; resets roll gaps as necessary for even tension of paper/cloth drawn; ensures that abrasive coated roll passes into drying chamber for onward transmission to sizing machine. Supervises work of helpers; replaces empty spool or beam of paper or cloth roll with filled ones to maintain continuous supply. Reports irregular functioning of machine to superiors for removal of defects.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7300

Skiving Machine Operator (Abrasive)

Skiving Machine Operator; Skiver (Abrasive) operates skiving machine to remove abrasive grain from abrasive coated cloth and bevel edges for joining ends to form endless band. Starts machine and feeds ends of abrasive band

by hand through revolving grinding wheel to remove coated abrasive grains to reduce thickness of material; checks skiving done at ends and ensures that they are uniform; repeats skiving if necessary. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7400

Belt Press Operator (Abrasive)

Belt Press Operator; Pressing Machine Operator (Abrasive) presses glued ends of abrasive coated cloth or paper belt by pneumatic pressing machine to form endless belt. Collects abrasive coated material; applies glue over skived ends of belt with hand brush; joins one end of belt over another carefully to form continuous and endless belt without ridges at joint; sets pneumatic pressing machine and places joined end of belt over platen of machine; operates foot pedal of machine to lower upper ram of machine and press joint of abrasive belt at set pressure; removes material when press opens up automatically after set period. May trim edges with hand scissors.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7500

Roll Winding Machine Operator (Abrasive)

Roll Winding Machine Operator; Take Down Machine Operator (Abrasive) operates roll winding machine to wind

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

abrasive paper or cloth coming in continuous lengths, into rolls of prescribed size. Fixes empty spool to machine and clamps it securely; draws by hand, roll of paper or cloth coming from drying chamber and rolls it over empty spool giving few turns for holding it firmly; starts machine and observes winding of abrasive cloth or paper on spool; stops machine after roll attains prescribed size; removes rolled material from machine using hoist equipment and continuous operation with new spool. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7600

Sheet Cutter (Abrasive)

Sheet Cutter (Abrasive); Abrasive Sheeting Machine Operator cuts roll of abrasive paper or cloth into sheets of prescribed sizes using sheet cutting machine fitted with rotating knives. Loads roll of abrasive paper or cloth on machine frame either manually or by hoisting equipment; draws free end of abrasive paper or cloth roll and passes it over feed rolls of machine; adjusts guides on scale to obtain specified length of sheet, screws guides to hold sheets in position sets knives or cutting blades to machine and adjusts them to cut material; starts machine and observes cutting operation and removal of cut pieces over conveyor system; stops machine if paper gets stuck up, releases block and re-starts machine. Replaces blunt knives with sharp ones when required. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7700

Slitting Machine Operator (Abrasive)

Slitting Machine Operator (Abrasive) operates slitting machine to cut roll of abrasive paper or cloth into smaller sizes or rolls of lesser width and length. Loads roll of abrasive paper or cloth on machine frame either manually or by means of hoisting equipment; draws free end of paper or cloth roll by hand and passes it over feed rolls of machine; sets and adjusts machine for speed, tension of paper or cloth and slitting of roll to required width and length; starts machine and observes slitting of roll to required widths and winding of slit material into rolls over collapsible spindle set on opposite side of machine; stops machine on completion of operation and removes smaller wound rolls an collapsible spindle or spool from slit roll; repeats process; keeps record of output given. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7800

Clicker Press Operator (Abrasive)

Clicker Press Operator (Abrasive) operates power press to cut pieces of abrasive material to desired specifications. Sets die in machine in which material is to be cut; starts machine, feeds abrasive coated paper or cloth into machine and ensures that operation proceeds correctly and makes necessary adjustment to machine

collects cut pieces from machine and bundles them. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.7900

Splint Feeder (Match)

Splint Feeder (Match) feeds match splints in automatic machine to insert them in grooves or holding device for dipping splint tips with match-head composition and dry them in drying chamber. Brings trolley containing levelled splints from levelling section; takes wooden tray containing levelled splints from trolley and feeds levelled sticks in magazine of machine by transferring contents of wooden tray into it, keeping them arranged in same manner and position; dresses levelled splints in magazine by tapping with wooden pad and removing broken, uneven or cross splints; watches feed or flow of levelled splints into machine where stick feeding device automatically inserts each splint into groove or holding device of continuous rotating conveyor chain; keeps magazine continuously full by supplying levelled splints from wooden trays; collects fallen out splints from floor or pit and deposits them in basket to be taken to levelling section; pushes empty trolley and leaves it at levelling section; maintains place clean and tidy. May operate machine and collect fully tried matchstick.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.8000

Splint Drying Chamberman (Match)

Splint Drying Chamberman (Match) Match Splint Drying Machine Attendant tends drying and polishing machine to dry and polish match splints. Collects match splints from bins and spreads them evenly in wooden chamber tray; opens bottom door of drying chamber, pushes chamber tray containing splints into its moving platform and closes chamber door; starts machine to blow steam or hot air to heat furnace to desired temperature by regulating thermostats or by adjusting dampers; opens top door of chamber and removes chamber tray containing dried splints after specified length of time; feeds dried splints into hopper of adjacent polishing chamber for getting dried splints polished in its revolving drum; pokes hopper of polishing chamber with wooden stick to remove chocking and to push dried splints inside revolving polishing drum. May carry splints from godown to bins.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.8100

Levelling Machine Attendant (Match)

Levelling Machine Attendant (Match); Leveller (Match) operates levelling machine to fill wooden trays with horizontally levelled splints. Place, trolley with empty wooden trays near machine, arranges them in machine frame with mouth turned towards hopper of levelling machine; locks levelling machine frame over empty wooden trays securely; fills match splints into hopper of levelling machine; spreads splints evenly by hand

in hopper of machine; starts machine to agitate hopper, side to side to fill empty trays with splints horizontally; removes wooden trays filled with levelled splints and places them on rack of trolley for further processing. Oils and greases machine.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

8122.9900

Metal Finishing, Plating and Coating Machine Operators, Other

Metal Finishing, Plating and Coating Machine Operators, Other perform number of routine and low skilled tasks, such as fixing components in jigs, removing component from jigs, degreasing and cleaning components by scrubbing, drying them in saw dust, lifting materials from acidulated water tank, feeding sheets in roller and furnace for drying and heating of tin plate etc. and are designated as Jigger Un-Jigger, Plate Helper, Drier, Water Boy, Norton Roller Feeder, etc. according to nature of work done.

ISCO 08 Unit Group Details:

Code 8122

Title Metal Finishing, Plating and Coating Machine Operators

Group 813

Chemical and Photographic Products Plant and Machine Operators

Chemical and Photographic Products Plant and Machine Operators operate and monitor machines which process a variety

of chemicals and other ingredients to produce pharmaceuticals, toiletries, explosives and photographic or other chemical products.

Occupations in this Group are classified into the following Families:

8131 Chemical Products Plant and Machine Operators

8132 Photographic Products Machine Operators

Family 8131

Chemical Products Plant and Machine Operators

Chemical Products Plant and Machine Operators monitor and operate units and machinery to blend, mix, process and package a wide range of chemical products.

8131.0100

Crusher Operator, Chemical

Crusher Operator, Chemical operates power driven crushing machine to break solid lumps of chemicals or other materials into smaller size for further processing. Collects material to be crushed; fills hopper of machine by hand or by operating mechanical feed; fixes screen to machine to retain pieces which are too large. Operates controls to start, stop and regulate speed of machine; breaks oversize or jammed lumps with a hammer; discharges crushed material into outlet container-cleans crusher and work-area. May weigh the material before and after crushing to know loss in crushing. May be designated according to type of process adopted/industry attached to.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.0200

Miller/Mill Operator (Chemical)

Miller; Mill House Operator; Ball Mill Attendant; Ball Mill Operator Grinder (Chemical) feeds and tends a machine that grinds solid chemicals or other materials, used in chemical and related processes, to reduce them to particles of specified size. Selects and fits to machine screens according to size of particles to be produced; starts machine and feeds material into mill; observes grinding process, takes samples of ground material to ensure that particles of required size are obtained; discharges ground material into outlet container and supervises the removal of ground material. May keep records of weight of material ground.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.0300

Pulveriser Operator, Chemical

Pulveriser Operator, Chemical; Disintegrator Attendant, Chemical feeds and tends power-driven pulverising machine to reduce crushed chemicals or other material into fine particles or dust. Collects material; fixes screen to machine according to fineness of powder particles to be produced. Starts machine and feeds material into machine to pulverize kit to fine powder. Observes disintegrating process, takes samples of pulverised material, and ensures that required fineness is being obtained. Discharges

disintegrated material into outlet container; cleans machine and work area.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.0400

Mixing Machine Man Attendant (Chemical)

Mixing Machine Attendant, (Chemical) feeds and tends machine to mix and blend different solid or liquid ingredients in required proportions. Weighs ingredients according to formulae or specifications and feeds prescribed quantities of ingredients into machine container by hand or by operating valves, pumps or mechanical loaders; starts machine agitators to mix materials thoroughly; adds further ingredients, if required; runs machine until mixing process is completed; removes mixture from machine container; cleans machine and work area and prepares machine for fresh run. Observes and reports abnormalities in blending and mixing.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.0500

Compounding Man (Match)

Compounding man (Match) operates a grinding and mixing mill to make compound for match heads and match box sides according to formulae. Prepares glue solution and maintains it at specified temperature by keeping glue container in boiler; weighs and measures chemical

ingredients according to formulae; fills ball mill with chemical ingredients and adds prescribed quantity of water to it; closes lid of ball mill and secures it tightly; starts mill by operating hand lever and runs it for specified period to make chemical paste; stops mill opens lid and fills in glue solution. Closes lid of mill and again runs it for required period to make match head compound of required consistency; stops mill and empties prepared compound into empty drum placed below; places drum on platform of mixing machine platform to place stirring rod of machine immersed inside composition drum; starts machine to agitate stirring rod to mix composition to required consistency; stops machine when ingredients are thoroughly mixed and removes drum to be collected by Composition Supplier or Tableman; keeps place clean and tidy.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.0800**Sieving Machine Attendant, Chemical**

Sieving Machine Attendant, Chemical feeds crushed or ground chemical material in sieving machine to automatically sift and collect sieved material. Selects sieve of the specified size, suiting thickness or diameter of the sieve material; fixes sieve to the machine; feeds crushed or ground material in machine; starts machine to sift material by required size; stops machine, discharges sieved material, and arranges its storing. May keep record of weights and sizes of sieved material. May sieve material progressively to smaller and finer

sizes. May repair defective parts of damaged sieves.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.0900**Grading Machine Attendant (Abrasive)**

Grading Machine Attendant (Abrasive) Shifting Machine Attendant (Abrasive) sifts and grades powdered ore or minerals by machine for use as abrasive powder and collects them separately according to their grades. Loads hopper of grading or sifting machine with powder ore; ensures that different grades or mesh of sieves are set to machine by Fitter; places empty containers or bags at delivery end of each sizing or grading compartment; starts machine; maintains steady flow of powder into sieve and pokes rod to remove blocks as necessary; observes operations to ensure correct sifting and sorting of powder according to size of sieving mesh; collects sifted materials according to grades (coarse to fine particles) in bags and stores them in central place. Cleans machine with compressed air at close of shift and keeps surroundings clean and tidy.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.1400**Drying Chamber Attendant (Drugs)/Chamber Operators**

Drying Chamber Attendant, Drug dries tables and powder in drying chamber. Spreads out powder and tables evenly in trays and loads trays on racks and shelves in drying chamber. Closes chamber and applies heat for fixed period of time; checks at frequent intervals to ensure that products are properly dried. Keeps drying chamber clean.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.1500

Drying Chamber Attendant (Match Boxes)/Chamber Operators

Drying Chamber Attendant (Match Boxes) tends a drying chamber machine to dry matchboxes by regulating speed of conveyor inside drying chamber. Heats and maintains drying chamber at desired temperature by noting readings on meters and gauges. Starts conveyor machine; places match boxes on conveyor belt to carry them through heated chamber; regulates speed of belt through chamber in accordance with temperature of chamber for product to dry. Examines dried boxes coming out of chamber to ensure that they are dried to required quality. Makes necessary adjustments to machine and regulates movement of conveyor in chamber as necessary. May clean and oil conveyor system.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.1700

Size Maker (Abrasive)

Size Maker (Abrasive); Mixing Machine Man (Abrasive) prepares sizing mixture and ensures its continuous supply to sizing machine (abrasive). Weighs and measures sizing materials such as glue, resin, varnish, solvents, water, etc. as per formulae and fills them in heating kettle or tank fitted with steam pipes; opens steam valve to heat kettle and boil ingredients; allows ingredients to mix and boil for prescribed period; stops supply of steam after set period; opens outlet or drain valve of kettle or tank to drain and maintain regular supply of glue to sizing machine; cleans tank and keeps place clean and tidy.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.1800

Paste Maker

Paste Maker; Glue Cooker makes glue paste, gum, or other adhesives according to formulae in steam jacketed kettles. Collects specified quantities of dry flour, corn-starch, tapioca, washing soda, copper sulphate and other ingredients to prepare desired adhesive paste. Prepares copper sulphate solution by mixing copper sulphate powder with specified quantity of water; fills drum fitted with steam jacket with measured quantity of dry ingredients according to formulae and adds requisite quantity of water and copper sulphate solution in it; closes lid of drum and opens steam valve to admit steam into it for boiling solution for specified period observing thermometer to maintain required temperature; opens valve to drain solution into container when specified consistency is obtained.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

May draw off and send sample of glue to Chemist for test.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.2100

Ammonia Operator/Ammonia Plant Operator

Ammonia Operator controls converter and auxiliary equipment that combine hydrogen and nitrogen to produce anhydrous ammonia: Lights burner and starts pumps, compressors, scrubbers, and absorption units. Moves controls on panel board to regulate temperatures of solutions and opens valves to admit heated and purified air and hydrogen into combustion chamber of burner, where nitrogen driven from air combines with hydrogen to form ammonia. Reads instruments, such as thermometers, pressure gauges, and potentiometers. Makes control adjustments according to operating instructions and charts. Pumps fresh solutions into scrubbing and absorption towers when readings indicate excessive alkalinity. Records operational data in logbook. May compute percentage of hydrogen and ammonia in burner gases, using standard test procedure.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.2200

Heat Treater

Heat Treater controls heat-treating furnaces, baths and quenching equipment

to alter physical and chemical properties of metal objects, using specifications and methods of controlled heating and cooling, such as hardening, tempering, annealing, case-hardening, and normalizing: Determines temperature and time of heating cycle, and type and temperature of baths and quenching medium to attain specified hardness, toughness, and ductility of parts, using standard heat-treating charts, and utilizing knowledge of heat-treating methods, equipment, and properties of metals. Adjusts furnace controls and observes pyrometer to bring furnace to prescribed temperature. Loads parts into furnace. Removes parts after prescribed time and quenches parts in water, oil, brine, or other bath, or allows parts to cool in air. May test hardness of parts. May set up and operate die-quenching machine to prevent parts from warping. May set up and operate electronic induction equipment to heat objects. May align warped fuel elements, containing radioactive uranium, using hydraulic ram straightener.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.2300

Filter Press Operator

Filter Press Operator operates filter press machine to filter impurities or other insoluble materials from slurries, chemical solutions or mother liquids. Opens filter press and covers filter plates with canvas, paper or other filtering media; closes press and ensures that its joints make a liquid tight seal; adds diatomaceous earth, saw dust, other settling compound to solution to precipitate impurities; pumps

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

when specified pressure is reached. Removes filtered impurities from screen with compressed air, water or steam, and dislodges solid materials caught between frames. Occasionally replaces damaged filter media and adjusts and makes minor repairs to equipment.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.2400

Filter Press Operator (Ceramics)

Filter Press Operator (Ceramics) operates filter press to filter and separate clay from water in slip. Covers filter plates of press with cloth or canvas; closes press, causing plates to come together, forming seal; starts machine and opens valve to pump slip into filter press, where clay is retained and water is squeezed out through filtering media; stops machine when specified pressure is indicated on gauges or when all slip in tank is pumped into press completely; opens filter press plates and removes pressed clay between plates. Cleans press and replaces damaged filter cloth or camods.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.2500

Strainer, Liquid

Strainer, Liquid filters liquids or solutions through strainers or filter papers to remove impurities and foreign matter. Selects and places strainer, covered with canvas, cloth, paper or mother filtering

media below outlet of cooker; mixes and agitates saw dust or mother settling compound with solution to precipitate impurities; opens outlet valve to permit material to filter through strainer into tubs or other containers; cleans and replaces filters. May be designated according to material treated such as STRAINER, RUBBER; STRAINER PAPER PULP; STRAINER CANNING AND FOOD PRESERVATION, etc.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.2600

Box Filtration Operator

Box Filtration Operator; Filterman, Liquid; Filterer, Rotary Drum filters liquids, using rotary drum filtering screen. Opens valves to regulate flow of solution into filter tanks and starts drums (which are covered with canvas, wire cloth, or other filtering media), rotating valves to control vacuum in drum to draw liquid through filtering media and hold solid particles on drum. Observes intake side of drum to ascertain that scrapers remove solids from drum. Adjusts drum rotation, lifter feed, or vacuum to obtain clear filtrate. May add chemicals to destroy bacterial growth. May tend washing sprays, setters or related equipment. May make minor repairs to equipment. May be designated according to type of solution filtered or solid separated.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.2700

Hydro Extractor Operator

Hydro Extractor Operator, Centrifuge Operator operates centrifuge machine that separates solids from liquids, or liquids of different specific gravity. Fills drum of machine with liquid material. Starts machine and adjusts drum speed to obtain efficient separation of substances; empties containers when separation is completed. May fix and clean filtering media in machine, operate heating attachment on machine and test samples for moisture content. May be designated according to type of materials separated.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.2800**Crude Oil Treater (Oil Field)**

Crude Oil Treater (Oil Field) treats crude oil at wells in chemical, electrical or centrifugal units to remove sediment and water. Tests oil for contents of sediment and water using gravity-separation machines and according to result of test switches oil through treating units, to and from storage tanks or into pipe lines. Adds chemicals to chemical treating unit or routes oil through electrical or centrifugal units to break up oil and water emulsions and drain off water. Precipitates sediment in settling tanks. Gauges tanks to determine quantity of oil treated and delivered to pipe lines. Operates and maintains water and oil pumps of treating unit. Cleans and makes repairs to units. Records production results of tests and other data. May operate oil heaters to raise oil to desired temperature for treating. May pump wells.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.2900**Gauger (Cement)**

Gauger (Cement) conducts simple tests of samples of cement in laboratory for physical properties at different stages of production. Collects samples of material, weighs and mixes ingredients to prepare moulds for laboratory test. Sets apparatus and conducts routine tests to determine physical properties such as compression, tensile strength, setting time etc., of cement at various stages of production. Adds or eliminates ingredients as directed by Chemist to remove defects and raise quality of product. Maintains readings and observations for calculations and reference purposes. Cleans and maintains apparatus in good condition. May do minor repairs to apparatus and equipment. May undertake tests independently. May assist Chemist to conduct research work. May store, maintain account of instruments, equipment, apparatus, etc. if required.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.3000**Disc Operator (Abrasive)**

Disc Operator (Abrasive) operates machine, which uses steel shot for producing flat surface on abrasive wheels prior to or sometimes as an alternative to turning. Mounts abrasive wheel on rotating spindle of machine and sets

retaining plate ring to keep emery wheel at one point; manipulates levers to lower moveable arm of machine over abrasive wheel to hold it tightly in position; fills hopper of machine with steel grits; starts machine, opens bottom plate and regulates flow of steel grits over rotating wheel of machine. Observes, frequently during operation, grinding and smoothening of surface of abrasive wheel on rotating platform of machine with steel grits and blows off deposited dust and powder with compressed air as necessary; checks thickness and surface of abrasive wheel with measuring instruments such as callipers, gauges, to ensure correct size and finish; stops machine and removes abrasive wheel when required flatness is obtained. May clean and oil machines.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators**8131.3100****Crude-Oil Treater (Petrol and Gas)**

Crude-Oil Treater (Petrol and Gas) Operator; pumper; treater Operates chemical, electrical, and centrifugal oil-treatment units to remove sediment and water from crude oil before transporting oil by pipeline to refineries: Opens valves and starts pumps to pump oil from storage tanks to treating units. Opens valves to mix specified chemicals with oil, and adjusts controls to heat mixture to specified temperature. Starts centrifugal machines that break up oil and water emulsions and drain off water. Opens valves and starts pumps to transfer oil into settling tanks where sediment is precipitated from oil. Tests sample in gravity-or centrifugal-separation machine to determine content of oil specified for

pipeline transportation. Pumps treated oil into pipelines leading to refinery. Cleans and lubricates motors, pumps, and other moving parts of units. Records data, such as volume of oil treated, operating temperatures of units, and test results. May operate pumps at oil well sites. May tend treating-plant equipment to remove impurities from natural gas.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators**8131.3200****Brine Maker (Chemical)**

Brine Maker (Chemical) tends tanks, filters, and auxiliary equipment that produce brine solution for use in electrolytic cells: Pumps water through salt beds or starts conveyor bringing salt from storage area for dissolution in water, producing mixture of specified salt content. Admits salt water and specified amounts of liquid chemicals, such as caustic soda or acid, to mixing tank to produce brine solution meeting plant standard. Pumps solution to settling tank to settle out impurities and through sand-bed filters for final purification. Draws sample of brine for laboratory analysis or tests density, salt content, and acidity, using hydrometer, salinometer, and pH meter. Turns valves to transfer brine to electrolytic cells and maintain brine at specified levels in supply lines, tanks, and cells. May dump materials into brine to adjust chemical composition to plant standard, using titration test to determine strength of solution. May pump water through resin and carbon beds to demineralise it. May tend heat exchanger to maintain temperature of brine within specified limits.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.3501

Autoclave Operator

Autoclave Operator; Sterilisation Attendant charges, operates and unloads an autoclave (high-pressure vessel) for processing chemicals, oils, or sterilising bottles, ampoules, etc. Charges or loads vessel with predetermined quantities of chemicals or objects; checks valves for operation; raises temperature of autoclave by increasing steam pressure. Observes pressure and temperature gauges, thermometers, timings and other instruments and makes necessary adjustments to ensure that process or sterilization is carried out correctly. Unloads product on completion of process and prepares vessel for next batch. Implements safety measures in regard to operation of plant/machinery and in handling and processing materials, and maintains machinery. May keep records. May be designated according to product processed or sterilized.

Qualification Pack Details:

QP NOS Reference	RSC/Q0210
QP NOS Name	Autoclave Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.3600

Evaporator Operator

Evaporator Operator; Pan Operator; Vacuum Pan Operator charges and operates evaporating tank, vacuum-pan or similar device to concentrate solutions by driving off excess water contents. Pumps weak (liquid) solution into evaporator tank or pan; operates vacuum pump to obtain vacuum in pan, if required; regulates flow of steam into heater coils of evaporator; periodically tests concentrations of solution by use of instruments or by making simple chemical tests; makes necessary adjustments to temperature and pressure to obtain required solution; pumps concentrated solution from evaporator for auxiliary heating. Implements safety measures in regard to operation of plant/machinery and in handling and processing materials, oils and maintains machinery. May tend auxiliary equipment such as settling tanks, preheating tanks, condensers and cooling equipment. May treat solutions, such as those of glue, glycerine, glucose and caustic soda and be designated accordingly.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.3700

Reactor Convertor Operator

Reactor Converter Operator (Chemical Process, except Petr oleum) operates or tends number of pieces of equipment, other than those used for treating petroleum, which perform sequence of complex operations in chemical reaction process. Regulates feed of gaseous, liquid or solid material into equipment. Checks progress of process by looking through peep holes, observing temperature readings, pressure gauges and other instruments and making simple chemical

tests. Regulates material feed and heating or cooling devices and makes other adjustments as necessary to ensure that processes are correctly carried out.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.3800

Converter Operator (Grain-Feed Mills)

Converter Operator (Grain-Feed Mills) controls converter to change starch into glucose or corn syrup, and tests products to verify purity (specified dextrose content): Turns valves to admit steam and water into converter. Introduces starch into converter so that cooking occurs as starch is added. Detects from sound of cooking process formation of paste, and adds acid, as necessary, to reduce viscosity. Closes converter and turns valve to attain specified pressure. Draws off samples, and makes standard iodine and alcohol titration tests. Turns valves to blow syrup into tank when tests indicate conversion is complete.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.3900

Distiller (Chemical)

Distiller (Chemical) controls continuous still equipment to distil pine oleoresin into oil of turpentine and rosin: Turns valves to transfer heated oleoresin from melting vats into cleaning, filtering, and washing tanks to clean, filter, and wash trash,

foreign matter, and other impurities from resin preparatory to distillation. Pours specified amounts of oxalic acid into tanks to facilitate cleansing process, using graduated cylinder. Drains impurities from wash tanks and starts pump that forces resin into still. Turns valve to circulate water through steam jackets. Observes temperature gauge and turns valve to regulate heat to specified temperature to condense turpentine vapours. Turns valve to drain rosin from still. Observes sample of distillate for clarity and separation of turpentine from oleoresin to determine completion of distillation. Occasionally replaces filters in tank and cleans tank as necessary.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.4000

Continuous Machine Operator (Match Box Manufacturing)

Continuous Machine Operator (Match Box Manufacturing); Continuous Machine Driver (Matches) operates continuous machine to dip match splints in liquid paraffin and match-head composition, dry and deliver them in finished form. Checks supply of liquid paraffin into machine; ensures that composition tank of machine contains match-head composition to prescribed level and that magazine of machine is kept continuously full with match splints; turns hand wheel to adjust machine to immerse match splints to specified depth in match head compound. Sets thermostat or thermometer in compound dip tank and turns steam and cold-water valves to regulate compound temperature and viscosity. Starts machine; compares size of match heads

passing on conveyor with drawings of acceptable match heads and cuts unacceptable matches from conveyor with long handled push knife; raises or lowers conveyor or dip roll to immerse match splints in bath of paraffin and then in match head composition. Observes and ensures drying of match-head in drying chamber at specified temperature; drains and washes dip tanks to remove thickened compound. May replenish compounds and paraffin in dip tank.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

**8131.4100
Receiver (Match)**

Receiver (Match) receives dried match sticks coming out of continuous machine in trays for delivering them to Box Filling Section. Pushes trolley containing empty trays to side of continuous machine; keeps empty trays on carrier of continuous machine for filling them with dried match sticks; collects filled trays from carrier and replaces them with empty trays from trolley; dresses match sticks in trays evenly by padding them by hand or with flat wooden piece; removes damaged and incomplete stick; arranges filled trays on trolley racks and pushes loaded trolley to specified point; ensures that paraffin level in continuous machine is maintained at prescribed level and fills container with liquid paraffin as necessary by opening paraffin tank tap.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.4200**Box Making Machine Operator (Match)**

Box Making Machine Operator (Match) operates power driven machine to fold veneers, paste them with paper and make complete outer and inner match-boxes. Collects outer, bottom and rim veneers and examines them for defects. Positions roll of blue paper on feed rack of machine and draws end of paper from roll over feed rollers; fills glue reservoir of machine and regulates flow of glue; feeds machine with sorted and dressed veneers, outer rim or bottom as required; starts machine by operating hand levels or by pressing electric button, ensuring that glue flows uniformly over blue paper, veneers move singly, folds and pasted properly, and finished outer and inner boxes carried over conveyor system ensuring that operation proceeds correctly, making necessary adjustments to machine. May operate outer box making machine or inner box making machine where two types of veneers (rim and bottom) have to be fed simultaneously.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.4300**Box Filling Machine Operator (Match)**

Box Filling Machine Operator (Match); Box Filling Machine Man (Match) operates Box Filling Machine which automatically fills match boxes with prescribed number of match sticks and delivers filled and closed boxes. Starts machine by operating hand lever; checks feeding of empty match

boxes into moving chain plate of machine and ensures that they are automatically opened; collects tray containing arranged match sticks and feeds magazine of machine with sticks in same order of arrangement by removing bottom plate of tray; checks movement of open boxes over chain plate and observes filling of specified number of sticks in boxes and closing filled boxes automatically; removes by hand unfilled and damaged boxes; ensures that filled and closed boxes are collected at delivery end and are removed for further processing. Maintains continuous feed of magazine with arranged match sticks and stops machine when operation completed. Cleans and oils machine. May do minor adjustments to machine.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.4400

Friction Machine Operator (Match)

Friction Machine Operator (Match) operates friction machine which applies friction composition on sides of match box and dries them in drying chamber of machine. Fills composition container of machine with required quantity of friction compound; checks machine pump to ensure that friction solution is pumped over rollers at regular intervals; adjusts rollers, or aligns and fastens brushes, in machine; positions roll of levelled and band-rolled match boxes on feed conveyor; starts machine and observes coating of friction compound on two sides of match box and drying in drying chamber; examines dried boxes coming out of drying chamber for defects and

makes adjustments to machine for proper operation. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.4500

Box Closing Machine Operator (Match)

Box Closing Machine Operator (Match) operates automatic matchbox closing machine to fit and close inner match box case into outer match box cover. Starts machine and checks and ensures proper feeding of inner and outer boxes into machine. Observes movement of inner and outer match box covers from bins over conveyors and their getting tilted into correct position, and inner case pushed inside outer cover; removes by hand damaged or broken boxes from conveyor and deposits them in waste container; collects completed boxes at delivery end of machine and arranges them in trays for removal to filling section; stops machine if boxes get jammed over conveyor system, removes defects and continues operation.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.4600

Band roll and Labelling Machine Operator

Banderol and Labelling Machine Operator operates or sets up and operates on automatic machine that glues trade labelling banderol papers (excise duty

papers) to filled matchboxes. Adjusts feed hoppers and guides according to size of label and match boxes to be labelled; Changes applicator plate according to size of labels, regulates feeding mechanism and pressure of applicator rollers. Fills glue reservoir and loads labels and filled match boxes into machine; starts machine, observes operation and makes adjustments if necessary; removes jammed boxes or twisted labels from machine.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.4900

Coke Oven Operator, Controller

Controlman, Coke Oven records meter and gauge readings and controls pressure and draft in coke ovens. Watches readings of thermo-couple recorders, pressure gauges, governors etc., and reports irregularities to Heater. Arranges for gas reversion. Adjusts and maintains gas pressure and air draft after gas reversal. Checks working of chimney governors, foul gas governors and operates butterfly valves to prevent fluctuation of pressure inside coke oven battery. Checks deposition of tar in collecting main and arranges for its cleaning. Keeps in touch with blast furnace, coke oven gas holders, booster house and other departments to maintain flow of correct volume and pressure of gas into coke ovens. Keeps record of all pressure, draft and volume readings. May instruct Gas Man for operating gas reversal clock. May manually operate butterfly valves, if there is no governor. May also arrange for cleaning spray nozzles and cocks for proper flow of gases.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.5600

Charcoal Burner, Beehive Kiln (Chemical)

Charcoal Burner, Beehive Kiln (Chemical) operates series of beehive kilns to produce charcoal: Places kindling in kiln and starts fire. Seals top of kiln when specified heat is attained, using cement and hand trowel. Observes colour of smoke as it issues through draft holes in kiln bottom to ensure burning of charcoal as specified. Opens and closes draft holes, using bricks, to regulate forming of charcoal. Seals draft holes and cracks in kiln with cement to smother fire when charcoal has been formed

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.5800

Producer Gas Plant Operator

Producer Gas Plant Operator operates producer gas plant for manufacture of producer gas from burning coal for metallurgical or other purposes. Ignites coal, opens valves and injects steam and air on red hot coal by blower. Watches frequently quality of gas produced. Removes ash by operating mechanical ash plough. Operates gas release valve and directs gas to gas main, for distribution to sections concerned or to gas chamber. Records readings of meters, thermo-coupled indicators and gauges to assess

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

quality, quantity and pressure of gas. May also introduce gas into new furnace and inspect furnace glues.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.5900

Bale Cutter Operator, Rubber

Bale Cutter Operator, Rubber cuts bales of crude rubber into small pieces by hand or hydraulic cutting press. Removes wired wooden wrapping or metal straps, using cutters covering from rubber bales and loads them on machine; pushes bale on bed of cutting machine and moves lever, actuating hydraulic ram that pushes bale against stationary knives or to lower knife or blades against rubber placed on platform of machine; pulls layers of smoked or crepe rubber apart by hand and completes operation; collects cut pieces, loads them in truck and moves truck to hot chamber for further processing; cleans, oils and lubricates machine and keeps work place neat and tidy.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.6000

Masticator, Rubber

Masticator, Rubber; Mixing Mill Operator (Rubber) tends and operates plasticator machine that mangles and kneads chunks of raw rubber between two mill rollers to prepare raw rubber for compounding with other ingredients for further processing.

Weighs specified amount of raw rubber chunks and dumps them into hopper of machine; turns steam and water valves to regulate heat of machine rollers, judges heat by touch; adjusts roll clearance for desired thickness of stock; starts machine and feeds stock through rollers to squeeze and knead material; pulls out warm stock in chunks at expiration of prescribed time or when visual examination shows material is satisfactorily milled; removes sheet rubber adhering to heated roll by cutting across it with knife and catching sheet as roll turns, or adjusting tension of scraper blade, that peels rubber from roll, by turning hand wheel; dips slabs in soap stone bath and hangs them for drying. Oils and cleans machine; keeps work surroundings neat and tidy. May manipulate controls of automatic feed delivery system.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.6100

Straining Operator (Rubber Reclaim)

Straining Operator (Rubber Reclaim); Strainer Man screens out metal particles and other foreign objects from processed rubber reclaim, using strainer. Opens chute on feed conveyors or shovels, scrap rubber into hopper of strainer, starts machine that forces rubber through strainer screen; regulates speed of machine and conveyors to prevent jamming of stock; feels strainer, and opens water valves to prevent overheating of machine and scorching rubber; discharges strained scrap rubber to conveyors to transfer to refining mills or to hand trucks for transfer to storage;

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

observes for colour and appearance and feels strained rubber to insure that foreign material is removed; replaces clogged and worn strainer screens, using hand tools. May tend magnetic device to facilitate removal of metal from rubber. May fill containers with screened rubber to specified weight and keep record of productions.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.6200 Mixer, Rubber/Mill Operator

Mixer, Rubber/Mill Operator makes rubber compound by mixing crude rubber with other ingredients such as filters, antioxidants, plasticizers, activators, retarders, accelerators, sulphur etc., by operating a mixing mill. Sets machine by adjusting roll clearance for desired thickness of milled stock; turns water valves to regulate temperature of rolls; shovels batch of processed stock into feed hopper of mill; adds previously prepared liquid and solid pigment to aid plasticisation, using hand paddle; starts mill and observes continuous pressing of stock between rolls; pulls out warm stock in chunks at expiration of prescribed time or when visual examination shows material is satisfactorily milled; hangs rubber chunks on racks to cool; removes cool stock from rack and places them on storage skids, separating layers with soap stone; adjusts and controls roll gap if machine stops due to over feeding; stops machine when layer of rubber strip on roller is exhausted; oils and lubricates machine.

Qualification Pack Details:

QP NOS Reference	RSC/Q0101
QP NOS Name	Mill Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.6300 Solution and Dough Making, Operator, Rubber

Solution and Dough Making Operator Rubber; Solution Maker; Rubber dissolves rubber compound in solvent and then mixes it in solution mill. Pours required quantity of solvent in mill chamber; adds specified quantity of rubber compound into solvent in chamber of mill; starts machine; runs machine for specified period of time or until mixing process is completed; draws samples to test solution for proper consistency; stops machine and drains solution from chamber.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and Machine Operators

8131.6400 Synthetic Fibre Maker

Synthetic Fibre Maker tends machine that forces specific liquid solution through fine holes into acid solidifying bath to form synthetic (chemical) textile filaments and winds them into untwisted threads. Starts machine and catches ends of filaments as they pass through acid bath. Brings several ends together, passes them over guide wheel and attaches them to spool, bobbin or similar winding device. Repeats process with other filaments. Ties thread

together when it breaks and replaces. Fills winding devices with empty ones. May operate machine with centrifugal arrangement for drawing and piling thread into special boxes.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.6500

Refining Machine Operator (Oils and Fats)/Oil and Fat Plant Operator

Refining Machine Operator (Oils and Fats) tends machine to refine crude oils such as, ground-nut pea-nut, soya-bean etc., for preservation or for making hydrogenated oil. Turns valve to pump oil and caustic solution from storage tanks into machine tanks as specified. Starts machine to separate caustic from oil by centrifugal force. Sets thermostat, observes gauges and regulates valves to maintain prescribed temperature in wash and dryer tanks. Turns valves to pump mixtures to wash and dryer tanks to remove by-products with water and impurities with heat. Turns valve to pump refined oil to storage tanks or for further processing. Cleans vessels, using water and steam. May be designated according to type of machine tended.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.6600

Hydrogenation Operator (Oil and Fats)/Oil and Fat Plant Operator

Hydrogenation Operator (Oils and Fats) controls equipment to process base oils used in manufacture of margarine, Vanaspati, etc., and shortening. Starts pumps to move premeasured batches of refined oils or fats into converter vessel. Turns valves to adjust rate of flow of hydrogen, steam, air, and water into converter and weighs and adds specified amounts of catalytic agents and other chemicals to hardened batch of oils or fats, as required. Tests samples, of batch using refractometer to ensure that hardness of product is in accordance with specifications. Pumps harden oil through filter press to remove catalyst and attaches lines to transfer filtered oil to blending vessel. Starts pumps to add specified amounts of blending oils to blending vessel and turns valves, to heat and blend oils, for required period of time. Observes temperature and pressure gauges and turns valves to make adjustments when necessary. Pumps finished oils through filter press to holding tank. May be designated according to equipment controlled.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.6700

Deodorizer

Deodorizer; Deodorizing Plant Operator (Oil and Fats) tends distilling equipment to deodorize processed oils used in manufacture of margarine, Vanaspati etc., and shortening. Turns valves to admit steam to heat oils to specified temperature, introduces and mixes nitrogen and create and maintains specified pressure and vacuum to remove fatty acids and gases from oil. Watches

operation through inspection holes and ensures separation of fatty acids. Gets samples tested and finished oil transferred to filling section. May direct draining of fatty acids and residue for manufacture of by-products.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.6800

Crystallisation Attendant

Crystallisation Attendant removes mother liquor, syrup etc., from chemical solution and collects crystals formed. Operates valves to allow required quantity of heated liquor (chemical solution) to enter crystallisation tank. Starts stirrers in tank to agitate liquor. Admits cooling water to coils in tank, ensuring that liquor is cooled evenly and at controlled rate over fixed period of time. Stops machine when required state of crystallisation has been obtained, and drains off contents. May add crystals to induce crystallisation.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.7000

Tablet Machine Operator

Tablet Machine Operator; Granulator Operator; Punch Machine Operator sets, feeds, operates tablet coating machine and operates tablet-making machine to compress powders into tablets of prescribed size, shape and weight. Sets machine; regulates the pressure by adjusting lever according to depth of

tablets to be made; selects, fixes and adjusts die and punch of specified size and shape. Feeds and regulates flow of prescribed quantity of material into hopper of machine. Starts machine and sets die in motion for compressing powdered material into tablets; regulates valves to control flow of tablets through funnel; places empty container at delivery end of machine to receive pressed tablets. Test checks, at periodical intervals, weight of pressed tablets by weighing in balances. May deliver finished and pressed tablets at store for packing. May clean and maintain machine. May deliver finished and pressed tablets at store for packing. May clean and maintain machine. May operate tablet coating machine.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.7100

Tablet Coater

Tablet Coater; Pill Coater coats compressed tablets or pills with syrup or other substance to preserve ingredients and make them palatable. Fills coating pot or pan of machine with tablets or pills. Pours measured quantity of syrup or other coating substance on tablets and starts pot revolving to coat tablets with syrup or coating substance. Operates machine to rotate pot for required time to ensure even coating. Checks that tablets are coated; adds powder that adheres to tablets polish surface of coated tablets by rotating them in wax-coated churn. May coat pills with powdered sugar, French chalk (pearl coating) or sulphur.

ISCO 08 Unit Group Details:

Code 8131

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Chemical Products Plant and
Machine Operators

8131.7200 Ampoule Machine/Plant Operator

Washing Machine Operator, Ampoules sets and operates washing machine to wash ampoules, vials, etc. to free them from bacteria. Washes vials and ampoules with soap, water and brush; again cleans vials and ampoules with water; fills glass carboil with distilled water and connects it with the washing machine by a rubber tube. Starts the air compressor and adjusts levers to maintain required pressure, releases the valve and finally washes and cleans vials and ampoules with distilled water. Removes cleaned vials into trays. May attend to their physical testing and packing.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and
Machine Operators

8131.7500 M.B. Tester

MB Tester; Myhelene Blue Tester tests tightness of sealed ampoules by immersing them in Myhelene blue solution. Places trays with filled ampoules and Myhelene blue solution in vacuum chamber solution; operates valves to create vacuum and allows trays to remain in chamber for specified period. Removes and washes ampoules in clean water; examines and rejects ampoules containing blue solution;

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.7600 Optical Examiner, Ampoules

Optical Examiner, Ampoules examines filled ampoules for clarity of solution. Holds ampoules against light; examines them visually for dirt and impurities and rejects defective ampoules. May fill and seal ampoules.

ISCO 08 Unit Group Details:

Code 8131
Title Chemical Products Plant and
Machine Operators

8131.7700 Acid Plant Operator

Acid Plant Operator maintains and operates acid plant for manufacturing sulphuric, hydrochloric, nitric or other acids by treating raw materials (sulphur, salts, etc.) with acid or steam. Collects required amount of raw materials for preparation of desired acid. Sets up and checks equipment, valves, gauges and other instruments; charges vessel with predetermined amount of chemicals, or regulates feed of materials into equipment; controls temperature in vessel by adjusting steam pressure; checks progress of process by looking through peep holes, observing temperature readings, pressure gauges and other instruments and making simple chemical tests; regulates material feed and heating or cooling devices, as necessary; removes acid when process is completed. May keep records. May be designated according to product or process, e.g. SULPHURIC ACID PLANT OPERATOR; HYDROCHLORIC ACID PLANT OPERATOR; FERTILISER MAKER; PHOSPHORUS MAKER.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.7800

Sulphur Burner

Sulphur Burner melts sulphur in tanks by steam to make molten sulphur or sulphur gas for making sulphuric acid. Charges furnace with sulphur; regulates gas burners to adjust temperature; adjusts valves to pass air over vaporised sulphur and form sulphur dioxide. Pumps water over baffle plates in furnace, gas being absorbed by water to form sulphuric acid. Pumps acid into storage tanks. May melt sulphur in tanks containing steam heated coils and load furnace with molten sulphur. May make periodic titration to determine concentration of gas in water.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.8000

Acid Concentrator

Acid Concentrator maintains and operates equipment to concentrate or purify liquid chemicals. Charges retort with liquid to be processed; adjusts temperature control valves to heat and vaporise liquid; skims waste material from surface of liquid in retort; feeds vaporized liquid through condensers to condense it; if concentrating chemical, occasionally tests specific gravity of liquid in retort. Observes gauges, records readings and makes any needed operating changes.

Inspects and makes minor repairs to piping, pumps, blowers and condensers; installs clean burners in furnace.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.8100

Acid Worker, Other

Acid Worker, Other performs various operations such as charging containers with materials, controlling temperature, regulating movement of products, reading gauges, operating valves and controls, emptying containers, etc. under supervision of foreman or works chemist. May keep records. May be designated according to duties or product, e.g. ACID LOADER; ACID PUMP MAN; STILL MAN; DISTILLER; SOLVENT RECOVERY OPERATOR; BRINE MAN, POTASH.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.8200

Cell Room Attendant, Chemical

Cell Room Attendant Chemical tends electrolytic cells used in manufacture of caustic soda and chlorine. Inspects cells to ascertain that liquid levels, brine flows, cell pressure and current as indicated by manometers, sight glasses, flowmeters and automatic recorders are maintained. Replaces any damaged tubing and washes cell surfaces with water or acid to clean them. Measures specific gravity of caustic soda solution produced by cell group,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

using hydrometer or by calorimetric titration and adjusts cell operation accordingly. May be designated according to type of cell tended, as HOOKER-CELL ATTENDANT, MERCURY-CELL ATTENDANT, GIBBS-CELL ATTENDANT.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.8300

Gas Storage Attendant

Gas Storage Attendant operates pumps and equipment to store gas. Maintains constant pressure in gas storage tank and compensates for withdrawal of gas by commercial users by observing pressure gauges on tank and pumping replacement quantities into tank as needed. Observes pressure gauges on storage tank to determine need for increasing or decreasing pressure, opens valves in gas-lines, and permits gas to flow into and out of pumps. Adjusts valves on gas or steam engines or throws electric switch to control appropriate high or low-pressure pumps in achieving desired pressure. Reads gas meters and records amount of gas received and dispensed from holders. Adjusts and lubricates pumps and prime movers. May adjust governors, to maintain desired pressure.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.8400

Soap Machine Attendant

Soap Machine Attendant tends automatic machine for cutting, chipping or rolling of soap. Sets up machine and tightens steel cutting wires on frame. Pushes slab of soap directly into machine cradle; starts motor to force wires through slab to cut individual bars or chip into numerous pieces. May operate hand powered winch to draw cutting wires through soap slab. Maybe designated as SLABBING ATTENDANT; MILLING ATTENDANT; CHIPPING ATTENDANT; PLODDING ATTENDANT; CUTTING ATTENDANT or STAMPING MACHINE ATTENDANT according to nature of duties performed.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.8500

Extraction Attendant, Chemical

Extraction Attendant; Chemical, Extraction Operator; Extractor Battery Attendant; Kettle Operator; Percolation Attendant; Acidification Operator boils necessary ingredients in kettles, vats, pans, and regulates temperature, pressure etc. as directed by Processman, Chemical, to effect desired chemical reaction. Collects different ingredients in required proportions and feeds them into pan separately or together, according to specification, adding required amount of fluids and other liquids, mixing them by stirrer. Switches on plant, injecting steam to boil and mix ingredients; observes temperature, pressure gauges, timings and other instruments, making adjustments, where necessary, to ensure process is complete. Collects samples for observation and test; drains stuff for storage; cleans pan and work place. Implements safety measures in regard to

operation of plant/machinery and in handling and processing materials, oils and maintains machinery. May tend open or wood fire pan. May be designated according to type of pan or industry associated with.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.8700

Laboratory Attendant

Laboratory Attendant; Laboratory Bearer assists Demonstrators and Laboratory Assistants in their routine tasks for purposes of analysis, sampling, dissection, testing, demonstration etc. as directed. Receives instructions from Demonstrator or Laboratory Assistant as appropriate. Sets apparatus and instruments, gets materials ready for dissection, dissolves salts, prepares standard solutions, operates simple machines and appliances, makes battery connections, etc. according to instruction, nature of work and type of laboratory in which engaged. May prepare chemical reagents and do routine testing and weighing under guidance. May assist in demonstration of experiments to students.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.8800

Agarbati Maker

Agarbati Maker makes scented agarbatis to give pleasant fragrance when lighted. Collects thin bamboo splints of required

size. Mixes saw dust, gum and coloured powder of desired shade in specified quantities with water to make thick pulp; adds scent or sandal wood powder to pulp for desired fragrance and rolls splints with required quantity of pulp on wooden plank smeared with thin oil to prevent pulp sticking to plank; removes pulp coated splints and dries them in sun; packs dried sticks in convenient packets or makes them into bundles of desired weight or number with trade labels wrapped for sale. May prepare incense powders and cubes for burning in religious ceremonies and other occasions.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and Machine Operators

8131.8900

Pencil Maker

Pencil Maker performs one or more hand or machine tasks in making of wood-encased pencils. Weighs and mixes material such as graphite, china clay, chalk, colouring pigment or dyestuff, and water according to formulae, and passes mixture through rollers of grinding or milling machine; places milled graphite or clay mixture in cylinder of hydraulic extrusion press and starts machine which presses mixture through extrusion dies, thus forming pencil leads; stores extruded leads in drying chambers and cuts dried leads to pencil lengths, using gauze and hand lever knife; packs cut leads in furnace chambers and treats them with controlled heat; impregnates baked leads by placing them in container while suspended and partly submerged in molten wax or grease; places wood slats into automatic machine which cuts grooves on one side and applies glue to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

grooved side; places leads in grooves of glued slat, covers this with other slat and presses them together; feeds pressed slats into automatic machine which shapes out pencil, applies paint, stamps maker's name and other identifying data, gives final polish; examines finished pencils for defects. May be designated according to type of work performed.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.9000

Assembler, Marking Devices (Pen and Pencil)

Assembler, Marking Devices (Pen and Pencil) performs any combination of following duties to assemble stencil marking and ink applying devices: Selects parts according to specifications. Aligns parts following guides, such as contours, edges, slots, or fastening devices. Joins parts manually or using hand tools, such as wrenches and power screwdrivers, or positions parts on holding device of machine bed under ram, and moves lever to lower ram, joining parts. Performs other tasks, such as cleaning parts, using air gun; fitting ink chambers; and positioning marker in holder of air pressure device that tests marker for leaks in ink valve and chamber.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

8131.9900

Chemical-Products Machine Operators, Other

Chemical Products Machine Operators, Other include those who operate and monitor machines which produce chemical-based products such as linoleum, candles, halogen gases and related items not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8131

Title Chemical Products Plant and
Machine Operators

Family 8132

Photographic Products Machine Operators

Photographic Products Machine Operators operate and monitor equipment which makes photographic film and paper, and which processes exposed photographic film and makes prints.

8132.0100

Printer Photographic

Printer, Photographic; Contact Printer prints and develops black and white photographs by contact-printing method in dark room. Examines negative for contrast, and selects appropriate photographic printing paper of suitable grade according to degree of contrast in negative; positions negative and printing paper in contact printing frame, fastening down edges; arranges lights to compensate for variations of light and shade in negative; exposes negative and paper to light for carefully timed period, according to density of negative; unfastens printing frame after exposure and removes exposed printing paper from frame; develops exposed prints in series of timed chemical and water baths;

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

washes and dries developed prints, and trims finished ones. May apply glossy finish to prints by heated metal press. May print colour photographs using colour-filters, when processing colour prints, or by other methods such as projection or reproduction process, and be designated as Printer, Colour Film. May operate contact printing machine to produce photographic prints in large numbers. May be designated as Printer, Motion Picture Film, if operates film printing machine to print copies (positives) of film from picture or sound negatives in dark room. May be designated as CHIEF LABORATORIAN if directs, controls and co-ordinates work of other DEVELOPERS, PRINTERS.

ISCO 08 Unit Group Details:

Code 8132
Title Photographic Products Machine Operators

8132.0200 **Developer, Photographic**

Developer, Photographic treats and develops in dark room exposed films or photographic plates in series of chemical and water baths for prescribed period to prepare transparent black and white negative or positive film. Prepares various developing and fixing solutions in special acid-resistant containers by mixing chemicals with water according to formulae; immerses film or plate in developer solution for specified period to make image visible; times period of immersion in each bath and maintains solutions and water at required temperature; rinses film in water to wash off developer solution; places film or plate into fixing bath to produce transparent and light-constant negative; rinses negative in cold running water to wash off

fixing solution; dries negative by swabbing off excess water with sponge and exposing it to air in dustless location. May prepare transparent positives from negatives. May develop film on automatic developing machine. May develop positive or negative film in colour solution to produce colour film, and be designated as DEVELOPER COLOUR FILM. May print copies from negatives.

ISCO 08 Unit Group Details:

Code 8132
Title Photographic Products Machine Operators

8132.0300 **Developer, Automatic (Photofinishing)**

Developer, Automatic (Photofinishing) tends machine that develops sheets, strips, or continuous roll of film preparatory to printing: Pulls film through trapdoor into darkroom. Strips paper backing from film and attaches identifying label. Feels edges of film to detect tears and repairs film, using stapler. Reads work order or feels film for size or notches to determine type of process and developing time required. Positions racks of film on machine chain links according to developing time required through machine preparatory to processing. Activates machine that automatically transports film through series of chemical baths to develop, fix, harden, bleach, and wash film. Listens for sounds that indicate machine malfunctioning and notifies supervisor or maintenance personnel when repairs are needed. May run test strip through machine for inspection by supervisor and add chemicals to or adjust machine as directed. May tend equipment that develops, fixes image, and dries x-ray plates.

ISCO 08 Unit Group Details:

Code 8132

Title Photographic Products Machine Operators

8132.0400

Enlarger, Photographic

Enlarger, Photographic; Projection Printer; Projection Camera Operator enlarges or reduces photographs to required size with projection printer in dark room. Sets enlarger (camera) in dark room, placing plain white board or easel below lens of enlarger; inserts negative film in holder of printer (enlarger) and switches on light which shines through negative onto easel below; adjusts various parts of printer and centres image, to secure desired projection; determines exposure time and lens opening, and selects appropriate photographic paper; switches off light and fixes photographic paper in easel, switches on light, and exposes paper to light for set period, shading darker areas of image to produce prints with roughly equivalent intensity; develops exposed prints in series of timed chemical and water baths; dries and trims finished prints. May apply glossy finish to prints with heated metal press. May enlarge or reduce colour film, using appropriate colour-filter and correcting colour deficiencies of negative with coloured filters. May retouch enlarged prints.

ISCO 08 Unit Group Details:

Code 8132

Title Photographic Products Machine Operators

8132.0500

Retoucher, Photographic

Retoucher, Photographic; Finisher, Photograph; Artist, Photographic retouches photographic negatives, prints and enlargements using pencils, brushes and water colours to increase contrast against background. Examines negatives and prints for retouching; places negative film on retouching desk to obtain illumination of negative film; fades out spots and blemishes on print or negative, using water colour or pencil; smoothens contours, eliminates stray hair, blots out facial blemishes and wrinkles, softens or reinforces highlights and shadows, using fine brush and colour or black pencil; eliminates excess light or shadow in negative or print to produce clearer and more attractive appearance.

ISCO 08 Unit Group Details:

Code 8132

Title Photographic Products Machine Operators

8132.0600

Photographic Dark Room Operatives

Photographic Dark Room Operatives perform various routine and low skilled tasks in photographic dark room or studio, such as developing, printing and enlarging photographs; setting up camera and arranging back-ground screen, furniture, etc.; preparing developing solution in prescribed manner; cleaning prints or negatives in water; drying negatives and prints and cutting them to sizes, mounting prints, etc.; assisting operator in operating automatic printing, developing or enlarging machine; and may be designated as Processor, Print Cutter, Print Mounter etc.

ISCO 08 Unit Group Details:

Code 8132

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Photographic Products Machine Operators

8132.0700

Printing Machine Operator, Photographic

Printing Machine Operator, Photographic operates automatic film printing machine to print photographs from negative film. Examines negative film for contrast and for deciding on type and grade of printing paper to be used; selects appropriate photographic paper; places negative film in film-holder of machine; sets machine for light conditions and for time of exposure; feeds roll of printing paper into machine; starts machine by operating switches; observes machine, exposing negative and printing paper to light for specified time; delivers exposed prints for developing. Collects exposed prints and develops them in chemical baths (developing and fixing solutions) for varying but timed periods; washes developed prints in cold running water; dries wet prints under shady conditions. May fit colour filters for taking colour prints. May repair and overhaul printing machine.

ISCO 08 Unit Group Details:

Code 8132

Title Photographic Products Machine Operators

8132.0800

Film Developing Machine Operator

Film Developing Machine Operator; Developer, Films operates film developing machine and develops exposed film in series of chemical and water baths in dark room, dries film in automatic drying unit,

and prepares transparent black and white negative or positive film. Receives exposed film and notes instructions regarding nature of exposure and developing conditions to be followed; loads exposed film roll in magazine of developing machine; mixes, or supervises mixing of, developing chemical baths in prescribed proportions; gets tanks of machine filled to prescribed level with chemical solution and water, as required; regulates and maintains correct temperature of developing solution; draws end of film from magazine and feeds it through feed roller of machine. Starts machine, observes and regulates running of film roll, drawn over rollers, and passing through series of guides, immersed in developing solution and fixing baths; adjusts speed of machine and runs it for set period until developed film, emerging from chemical bath tank, is rinsed while passing through cold water tank to wash off fixing solution. Maintains temperature of drying chamber at continuously set level, and dries negative; winds developed and dried film automatically on reels. Supervises cleaning of water and chemical tanks periodically and ensures re-filling of tanks with fresh chemical solutions. May develop and prepare coloured film.

ISCO 08 Unit Group Details:

Code 8132

Title Photographic Products Machine Operators

8132.0900

Photographic Film and Paper Maker

Photographic Film and Paper Maker performs one or more hand or machine tasks in making of photographic film and paper. Mixes gelatine, water and

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

chemicals in kettle, heats for prescribed period and allows mixture to cool, to form emulsion jelly. Melts and ripens emulsion jelly prior to coating, controlling temperature to produce emulsion of required viscosity and adding further chemicals according to type of coating required. Operates coating machine, feeding film or paper base material into machine, which moves it on rollers through liquid emulsion, over chill roll or into cooling chamber to set emulsion, and slowly through drying tunnel supplied with warm filtered air. Operates rotary slitting machine which slits film or paper into narrow width and automatically re-reels each width. May be designated according to type of work performed.

ISCO 08 Unit Group Details:

Code 8132

Title Photographic Products Machine Operators

8132.1000

Linoleum Maker

Linoleum Maker performs one or more tasks in making of linoleum. Mixes materials such as oil, rosin and ground cork in mixing machine to produce linoleum cement. Operates calender machine which spreads linoleum cement on burlap or hessian. Stores coated cloth in heated rooms where it is left for several days to dry and harden. Operates rotary machine which prints patterns on linoleum by means of engraved or cut hollow rollers fed with various oil colours. Passes linoleum through machine which trims edges and cuts it off to desired length. Examines finished linoleum for defects. May be designated according to tasks performed.

ISCO 08 Unit Group Details:

Code 8132

Title Photographic Products Machine Operators

8132.9900

Photographic Products Machine Operators, other

Photographic Products Machine Operators, Other include workers who operate and monitor equipment which makes photographic film and paper, and which processes exposed photographic film and make prints not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8132

Title Photographic Products Machine Operators

Group 814

Rubber, Plastic and Paper Products Machine Operators

Rubber, Plastic and Paper Products Machine Operators operate and monitor machines which knead and blend rubber and rubber compounds, and produce various components and products from natural and synthetic rubber and plastics or produce different paper products from paper, paperboard, cardboard and similar materials.

Occupations in this Group are classified into the following Families:

8141 Rubber Products Machine Operators
8142 Plastic Products Machine Operators
8143 Paper Products Machine Operators

Family 8141
Rubber Products Machine
Operators

Rubber Products Machine Operators operate and monitor machines which knead and blend rubber and rubber compounds, and produce various components and products from natural and synthetic rubber, such as moulded footwear, domestic articles, insulating materials, industrial accessories, or tyres.

8141.0100
Calender Machine Operator

Calender Machine Operator, Rubber operates calendering machine to convert rubber into rubber sheets by rolling process. Adjusts steam valves to regulate heat of machine rollers, judging heat by touch and by observing reaction of rubber; sets thickness gauge by turning hand-wheels; starts machine, feeds it with chunks of rubber; tests thickness of product with gauge and, if necessary, makes suitable adjustments; supervises helpers who load and unload material from machine. May attend to running repairs. May work as Calenderer, Rubberised Fabric.

ISCO 08 Unit Group Details:
Code 8141
Title Rubber Products Machine Operators

8141.0101
Pre and Post Calendering Operator

Pre and Post Calendering Operator is responsible for feeding the correct quantity of compound to the Calender rolls.

Qualification Pack Details:
QP NOS Reference RSC/Q0729
QP NOS Name Pre and Post Calendering Operator
NSQF Level 4

ISCO 08 Unit Group Details:
Code 8141
Title Rubber Products Machine Operators

8141.0200
Cord Dipping Operator

Cord Dipping Operator operates a machine to prepare rubberised fabric by passing fabric through solution of latex and other chemicals and dries it over preheated drums. Places roll of material on machine feeder; threads end of roll through machine rollers and affixes it to winder at finishing end; ensures that chamber of machine is filled with required quantity of latex solution, chemicals etc., for treatment of fabric; starts machine and adjusts tension of fabric and pressure of rollers; regulates temperature of drying drum; observes coating of fabric on one or both sides with rubber solution and then after threading over preheated drums for drying; tests thickness of product with a gauze and makes necessary adjustments; removes solution coated dried roll of fabric from winder; supervises helpers who load and unload material from machine. Oils and lubricates machine. May operate calendering machine.

ISCO 08 Unit Group Details:
Code 8141
Title Rubber Products Machine Operators

8141.0300

**Extruding Machine Operator
(Rubber)**

Extruding Machine Operator (Rubber) operates a machine in which compounded rubber is extruded through heated die fixed to machine head to form continuous shaped strip. Selects die and fits it to machine; turns steam valve to heat die to required temperature; starts machine; adjusts machine for specified extrusion speed by means of gear lever or any other device and fixes proper-size dies to machine to get specified profile; adjusts centring screws in case of tubes, to get uniform wall thickness; feeds rubber stock into machine by hand or conveyor; verifies dimensions of extruded rubber with gauge, callipers and rubber; adjusts controls to synchronize speed of conveyor belt with speed of extrusion of rubber. May be designated according to product extruded as Inner-tube Tuber-machine Operator (Rubber tyre and tube), Hose Tuber Machine Operator (Rubber goods).

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.0301

Feed Extruder Operator

Feed Extruder Operator is responsible for feeding the rubber compound to the extruder and performing the extrusion operation using the extruder

Qualification Pack Details:

QP NOS Reference RSC/Q0623
QP NOS Name Feed Extruder Operator
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.0302

Tube Extruder Operator

Tube Extruder Operator is responsible for feeding the rubber compound to the extruder and performing the extrusion operation using the Extruder.

Qualification Pack Details:

QP NOS Reference RSC/Q 0625
QP NOS Name Tube Extruder Operator
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.0400

Rubber Fabric Cutting Machine Operator

Rubber Fabric-Cutting Machine Operator; Fabric Cutter, Rubber cuts strips of rubberised fabric on bias for use in building up plies of pneumatic tyres to give added strength and flexibility to tyres. With aid of helper, lifts roll of canvas lined, rubberised fabric on rack of machine; passes end of fabric over guide rolls and on cutting table; adjusts tension of fabric over guide rolls. Measures with rule and sets cutter at desired points; starts machine, adjusts speed of feed and cutting action and removes and counts strips; checks fabric pieces periodically to determine conformity to specifications and makes necessary adjustments to machine; oils machine bearings; sharpens

circular knife, using abrasive stone. May operate slitting machine.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.0500

Slitting Machine Operator (Cycle Tyre)

Slitting Machine Operator, Cycle Tyre; Fabric Tearing Machine Operator, Cycle Tyre cuts rolls of rubberised fabric to required widths over slitting or tearing machine. Mounts roll of rubber coated fabric to machine shaft using hoisting equipment; adjusts rotary knives to cut stock to desired widths using a wrench; threads end of roll of stock through guides of machine with aid of helper; adjusts guide rolls to give proper tension to fabric roll; starts slitting machine, catches end of cut strips and starts them on power driven shells or spools. In operating Tear off Machine, tears by hand required width of fabric from end of roll, passes each end over opposite rolls (top batch and bottom batch) so that fabric is automatically torn off and wound in separate rolls by rotation of rollers in opposite direction; observes machine cutting and winding cut strips and regulates tension of winding device by turning wheels; lifts off rolls of cut stock. Oils and lubricates machine.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.0600

Bead Maker (Rubber Tyre)

Bead Maker, Rubber Tyre; Beading Machine Operator; Bead Builder builds up rubber-covered wire portions of beads in bead forming machine. Selects desired size form and mounts it on power driven shaft with wrench; places end of single strand of rubber-covered wire under small clamp on form; steps on control pedal and allows form to revolve until specified number of wire strands have been laid in groove of form; cuts wire with wire-cutting pliers, removes formed wires, and wraps small piece of rubber taps around ring to hold loose ends. May perform one or other of above operations and be designated accordingly as BEAD CUTTER, BEAD WELDER, BEAD GRINDER, BEAD NIPPER, BEAD SOLDERER, and BEAD WRAPPER. May cover beads with rubberised fabric. May oil and lubricate machine parts.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.0700

Profiling Operator (Cycle Tyre)

Profiling Operator, (Cycle Tyre) warms rubber compound between mill rollers and passes it through profile bowls for giving shape to cycle tyre tread rubber. Adjusts steam valves to regulate heat of profiling machine rollers, judging heat by touch and observing reaction of rubber; turns hand wheels to adjust distance between rolls; inserts chunks of compounded rubber between rolls to feed machine or positions conveyor feeder in front of rolls that carry strip of rubber from warm up mill for continuous feeding; starts machine, observes material threading between mill rollers on to profile bowl and take off conveyor;

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

adjusts knives to cut material to specified length; tests thickness of product with gauze and makes necessary adjustments; removes cut pieces and examines for defects.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.0711 **Continuous Curing Operator**

Continuous Curing Operator feeds the rubber compound into the machine to ensure a greater consistency of the profile of the end product.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0208
QP NOS Name	Continuous Curing Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.0712 **Roto Curing Operator**

Roto Curing Operator is responsible for loading the pre-fabricated “green” product, to be cured, appropriately on to the machine.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0209
QP NOS Name	Roto Curing Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.0713

Injection Moulding Operator

Injection Moulding Operator is responsible for feeding the rubber compound/strip into the Injection moulding machine for making rubber parts

Qualification Pack Details:

QP NOS Reference	RSC/Q 0207
QP NOS Name	Injection Moulding Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.0714 **Transfer Moulding Operator**

Transfer Moulding Operator is responsible for operating the machine and feed the rubber compound and other materials into the machine for making rubber parts.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0206
QP NOS Name	Transfer Moulding Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.0715

Internal Mixer Operator

Internal Mixer Operator is responsible for mixing the raw materials in the internal mixing machine to prepare a rubber compound which is processed further to obtain final compounds

Qualification Pack Details:

QP NOS Reference	RSC/Q 0201
QP NOS Name	Internal Mixer Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8141
Title	Rubber Products Machine Operators

8141.0716

Kneader Operator

Kneader is responsible for mixing raw materials in the Kneader and feed the Rubber into the machine to prepare the rubber compound.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0103
QP NOS Name	Kneader Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8141
Title	Rubber Products Machine Operators

8141.0800

Finishing Operator (Rubber Tyre)

Finishing Operator, Rubber Tyres; Tyre Finisher cleans and paints tyres, tests for balance and conductivity of tread on testing machine. Mounts tyres on rotating spindle; revolves spindle and examines

visually for side wall cracks, foreign material and blisters; feels beads to detect kinks and feels inner surface of tyre to detect spread cords, ply separations or buckles; trims toe of bead and mould over-flow with knife; removes tyre and positions it on balance table to check conformance to balance specification; releases lock that permits balance table to float freely on mounting and bubble gauge to function; observes bubble gauge to determine if tyre balance is within specified limits; marks tyre where gauge indicates lightest area, for location of inner tube valve; marks defective tyres and affixes labels to acceptable ones.

ISCO 08 Unit Group Details:

Code	8141
Title	Rubber Products Machine Operators

8141.0900

Sealing and Valve Fitting Operator

Sealing and Valve Fitting Operator, Tube and Tyre Building punches holes in inner tubes for valve stems by machine, inserts valve stem from inside of tube into hole, cuts tube to length and seals cut edges in press. Places one end of tube over arm like table of machine; presses pedal forcing punch through tube; removes tube from machine, inserts valve stem from inside of tube into hole, slips washer over outer end of valve stem and turns locknut on stem with wrenches; assembles oval shaped rubber and rubberised pieces to build up pad placed over section of inner tube where valve stem is placed, following plant specifications; cuts tube to specified length, bevels edges at each end to prepare them for splicing in power driven rotary knife that automatically cuts bevel; brushes rubber cement or acid on each

end of tube (inside skived edge has been turned back over tube to expose splice); joins stock together to form tube by lapping and bonding edges with hand roller or press. Removes tube for curing.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.1000

Finishing Operator (Rubber Tube)

Finishing Operator, Rubber Tubes examines cured rubber inner tubes for defects, such as cracks, blisters and thin spots. Inflates inner tube to facilitate inspection, using air hose; examines tube for defects, specified brand and valve while revolving on turn table; marks defective tubes and places them in storage area for removal to repair section; installs cores and lock nuts in valve stems of acceptable tubes, using electric screw driver; inserts valve stem into fixture and pulls lever to bend valve.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.1100

Sheet Maker (Rubber)

Sheet Maker, Rubber, Smokehouse Man prepares rubber sheets from tapped rubber milk and smokes them to required colour and transparency. Collects tapped rubber milk, progressively sieves it, using different sieves; coagulates it using acids; washes with water letting it drip dry in air; rolls it into sheets using mechanical or manually operated rollers. Collects rolled

rubber sheets, spreads them evenly on racks in smokehouse; treats rolled sheets with hot smoke over prescribed temperature in closed smokehouse, changing position of sheets from place to place in the smokehouse, removing the rolled sheets after smoking for specified period till sheets have acquired correct colour and transparency.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.1201

Moulder (Rubber)/Compression Moulding Operator

Moulder, Rubber; Rubber-Moulding Press Operator; Compression Moulding Operator moulds rubber in a steam or electrically heated press to form various products, such as gaskets, doll parts, and shoe heels. Places uncured rubber between upper and lower dies of mould; inserts mould in press; turns valve to lower ram on mould and to apply pressure and steam heat simultaneously for a specified time; removes mould from press, opens die and removes formed pieces with tongs or by hand; hangs formed articles on racks. May operate press in which rubber is injected into moulds. May be designated according to articles pressed, as RUBBER HEEL AND SOLE PRESSMAN.

Qualification Pack Details:

QP NOS Reference RSC/Q 0205

QP NOS Name Compression Moulding Operator

NSQF Level 4

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 8141
Title Rubber Products Machine Operators

8141.1301 Calenderer Rubberised Fabric/Operator-Textile Coating

Calenderer, Rubberised Fabric Operator-Textile Coating warms rubber compound between mill rollers, passes fabric between calender rollers, feeding with rubber to give rubber coating on surface of fabrics. Adjusts steam valves to regulate heat of machine rollers; charges fabric to be rubber-coated between rollers; sews ends of cloth rolls together and threads fabric through rollers to form continuous sheet; inspects sheet to detect turned edges, material defects; smoothens wrinkles and repairs holes, faulty seams, or frayed edges; starts machine and feeds it with chunks of rubber; tests with gauge thickness of rubberised fabric and makes necessary adjustments; examines thickness of coated sheets. May work as Calender Machine Operator, Rubber.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0728
QP NOS Name	Operator-Textile Coating
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1400 Hose Maker (Rubber Goods)

Hose Maker (Rubber Goods) makes rubber hoses by wrapping plies (layers) of

rubberised fabric and gum rubber stock on rubber tubes by means of wrapping machine and vulcanising pan. Places mandrel and pre-cut rubber tubing on workbench; swabs mandrel with soap stone solution and pushes it into rubber tubing; adjusts guides on machine to accommodate ply stock of specified width; positions mandrel on machine rollers and swabs rubber tubing on mandrel with rubber cement to provide adhesive surface; positions pre-cut ply stock between guides and depresses pedal to wind and roll ply stock around rubber tubing; cements band on hose in specified location; examines hose for wrinkles and loose plies, smoothens wrinkles and presses plies together, using fingers and roller; measures dimensions of hose with rule, callipers, and gauges, and cuts off excess rubber with knife; trims and cements tubing to seal raw ends of ply stock; wraps fabric around hose to prepare hose for curing. May wind wire between plies for reinforcement of hose. May clamp or cement metal fittings to ends of hose using rubber cement and hand tools. May wind rope around hose, on corrugated mandrel to hold hose against contours of mandrel during cure.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1500 Latex Worker

Latex Worker tends machine that dips forms into tanks of liquid latex to produce rubber goods, such as gloves, balloons, teats, valve tubes, and finger tips. Lifts form board from conveyor and fastens it to machine bed with hinge clamps and slide bolts; inverts bed by hand and moves

lever to submerge forms in tank of latex solution according to specifications; raises and rocks bed to create movement that dries coagulant or equally distributes and sets latex on forms; lifts boards and applies carbowax on latex coated mould and carefully removes mould from latex coating by hand; adds solutions to tanks with dipper to speed drying time or replenish supply of specified level.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1600 **Latex Foam Cushion Maker**

Latex Foam Cushion Maker moulds foam rubber products such as cushions, mattresses from latex by reducing its ammonia content, mixing and stirring it with chemicals and pouring and settling mixture in required mould in vulcanising tank. Pumps latex into tank of machine; turns valve to heat steam jacket of tank to specified temperature and observes gauge; sets timer and starts machine agitators that induce evaporation of ammonia; turns valves to regulate flow of treated latex and air into frothing tank to mix air with latex; determines density of latex mixture by weighing out specified quantity of mixed latex from frothing tank into holding tanks; weighs and pours specified amount of latex and chemicals in mixing machine and starts machine that mixes ingredients; places mould under discharge spout of mixing machine and fills mould with mixture; cures filled moulds by hydraulic press to form products; removes product from mould, squeezes out water by rolling process and finally dries it on spreading machine or drying chamber. May mix ground rubber

particles with latex, using mixing machine and fills moulds with mixture.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1701 **Tyre Builder/Radial Building Operator**

Tyre Builder; Tyre Maker; Radial Building Operator sets up and operates drum-type machine to build up pneumatic tyres. Positions ply stitcher rollers and drum according to width of stock, using hand tools and gauges; rubs cement stick on drum edge to provide adhesive surface for plies; pulls plies from machine spool and aligns with edge of drum; depresses pedal to rotate drum, winds specified length of ply on to drum, tears ply from spool, and splices ends; brushes solvent on to ply to ensure adhesion and repeats process as specified; alternating direction of each ply to strengthen tyre; pushes switch to move bead setters that press prefabricated bends on to plies and to position rollers that turn edges of plies under and over beads; winds chafers and breaker on to plies; aligns tread with guide, starts drum to wind tread on to plies; and splices depresses pedal to collapse drum and lifts tyre. May turn ends of plies under and over beads with steel rod and place it to one side in readiness for moulding and vulcanising (curing).

Qualification Pack Details:

QP NOS Reference	RSC/Q 0520
QP NOS Name	Radial Building Operator
NSQF Level	4

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1702

Tyre Building Operator-Commercial Vehicles

Tyre Building Operator-Commercial Vehicles is responsible for building the 2/3/4 wheeler commercial vehicle tyres.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0521
QP NOS Name	Tyre Building Operator-Commercial Vehicles
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1703

Tyre Building Operator-Passenger Vehicles

Tyre Building Operator-Passenger Vehicles is responsible for building the 2/3/4 wheeler passenger vehicle tyres.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0519
QP NOS Name	Tyre Building Operator-Passenger Vehicles
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1800

Tyre Moulder

Tyre Moulder shapes unfinished, new or reconditioned, pneumatic tyres in press mould. Places air or water bag of specified size inside unfinished tyre using tire spreading device and clamps, clamps tyre into mould; inflates bag with air or hot water under pressure to force tyre to shape of mould; places mould in vulcanising oven, regulates pressure and steam heat to vulcanise tyre; removes tyre from mould when vulcanising is complete and extracts air or water bag. May be designated according to the type of tyre moulded such as TYRE MOULDER CYCLE; TYRE MOULDER, AUTOMOBILE; TYRE MOULDER TRUCK.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1801

Tyre Moulding Operator

Tyre Moulding Operator is responsible for operating the press, load the "green" tyre in the mould and remove the cured tyre from the machine.

Qualification Pack Details:

QP NOS Reference	RSC/Q 0211
QP NOS Name	Tyre Moulding Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.1900**Band Builder (Tyre Building)**

Band Builder, Tyre Building; Pocket Maker; Ply Bander; Tyre Bander operates machine to glue together bands of ply stock for use in manufacture of rubber tyres. Positions play stock on drum and aligns with sides of drum; depresses pedal to rotate drum while guiding ply on drum to form band; swabs wrinkles with benzol and smooths by hand; splices ends of plies by pressing with fingers; repeats operation, reversing angle of splice until specified number of plies are formed into band; depresses pedal or pulls lever to move rollers against band and rotates drum to band plies; pushes pedal to collapse drum and pulls band from drum. May roll gum stock between plies and cut with shears. May wrap canvas liners around bands to prevent adhering during storage. May measure ply stock with table marker and tear stock on bias to specified length to form banding strips.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.2000**Trimmer (Tyre Building)**

Trimmer, Tyre Building; Tyre Trimmer, Hand trims excess rubber formed on tyres during curing process. Places tyre on turn table or machine driven rollers; holds knife at angle to tyre to avoid cutting tyre and turns table manually or mechanically to cut excess rubber; lifts tyre from table or pulls lever to remove it from rollers. May trim motor, "giant", aero, cycle tyres, etc. May inspect finished tyres for defects and marks them with chalk for rectification or rejection.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.2100**Tyre Repairer**

Tyre Repairer; Tyre Repairman repairs or remedies defects in cured tyres by retreading, vulcanising or other processes. Examines and probes tyre with awl (a small pointed tool for making holes) to determine extent of defect; buffs blemishes from tyre, using portable buffer; cuts out rubber around cracks and buffs area to prepare it for patching; cements gum rubber patch to cut-out to build up defective area; rolls down patch with hand stitcher and punctures air pockets in patch to remove trapped air; buffs and trims excess rubber from tyre; replaces treads by cutting defective tread from plies, buffering ply surface, and cementing new tread on plies. May tend vulcanizing machine to cure patch on tyre for specified time. May be known as RETREADER, TYRE, if engaged in tyre retreading.

ISCO 08 Unit Group Details:

Code 8141

Title Rubber Products Machine Operators

8141.2200**Moulder, Rubber Tube**

Moulder, Rubber Tube inflates joined raw inner tube with air, fits it in press mould and heats tube and mould to required temperature by means of steam for vulcanisation. Selects suitable shaping rim to correspond to mould in press; sets built

tube in rim with its valve stem fitted in slot of rim; inflates tube with air hose to bring it to its normal shape; caps valve stem to hold air in tube; removes tube from shaping rim, places it inside mould; removes valve cap, connects hand grip to valve stem, and injects air in tube by pressing foot pedal to hold tube firmly inside mould; checks curing pot (oven) to ensure that covers and all connections are in place; operates hydraulic ram inside pot so that moulds containing inner tube are held firmly in place; starts clock to time period of vulcanising and controls temperature and flow of steam into pot; watches gauges and makes necessary adjustments to ensure that correct vulcanising conditions are maintained; pulls moulds when vulcanising is complete; removes cured tubes from moulds and places them on hook provided.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.2300**Cycle Tube Reverser**

Cycle Tube Reverser reverses cycle tubes by pneumatic system for grinding. Carries mandrels (a rod used to retain the cavity in rubber tube) with vulcanised tubes to reversing stand; inserts one end of the mandrel into the air chamber tube on stand; starts compressor to permit air into air-chamber tube; pulls by hand one end of rubber tube on mandrel into air-chamber tube; closes other end of mandrel by hand and pulls out mandrel by hand to separate tube from mandrel in reverse position; removes reversed tubes to joining section.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.2400**Rubber Stamp Maker**

Rubber-Stamp Maker makes rubber stamps on order and mounts them for use. Composes metal type to match copy; locks type in chase and mounts chase on bed of vulcaniser; mixes French chalk, china clay, Plaster of Paris, dextrin and water and places mixture in metal moulding plate; reverses moulding plate over chase to receive type impression; dries compound in oven; covers moulded impression with cut to size piece of uncured rubber; clamps rubber-covered mould under steam chamber of vulcaniser until rubber is cured; removes cured rubber from mould, trims away excess rubber, and mounts stamp on wooden or metal backing with rubber cement.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

8141.9900**Rubber and Rubberised Product Makers, Other**

Rubber and Rubberised Product Makers, Other include all other workers engaged in making different types of rubber and rubberised products, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8141
Title Rubber Products Machine Operators

Family 8142**Plastic Products Machine Operators**

Plastic Products Machine Operators operate and monitor machines which knead and blend compounds to obtain plastic materials and which make various plastic components and articles.

8142.0100**Tablet Machine Operator**

Tablet Machine Operator, Tabletting Operator (Plastics) tends tablet-machine that compresses plastics powders into pellets or biscuits of specified weight and shape for use in moulding plastics products. Sets appropriate punch on cylinder and die on die setting plate; feeds hopper of machine with desired blend of plastics powders; opens gate valve to control flow of powders from hopper into machine. Turns steam valve to regulate temperature of machine according to ammeter gauge, and adjusts die pressure to attain specified hardness of pill. Examines compressed tablets to ensure that they are of required weight, size and shape. May clean, change and adjust die. May operate mixing, sieving or milling machine. May be designated, according to type of machine used, as ROTARY PERFORMER; SINGLE STROKER PERFORMER.

ISCO 08 Unit Group Details:

Code 8142

Title Plastic Products Machine Operators

8142.0200**Laminating Press Operator (Plastic)**

Laminating Press Operator (Plastics) sets and operates laminating press to heat and press plastics or plastics impregnated material into solid laminated sheets. Selects metal plates according to finish desired. Weighs and assembles sheets of impregnated material and places assemblies between metal planishing plates; slides plates into platens of hydraulic press; moves controls to heat press to specified temperature and compress assemblies between plates; removes plates from platens after specified time and strips plastics sheets from metal plates, using knife; examines sheets for defects. Cleans metal plates, using cloth, solvents, or scrapers or by dipping plates into vats of hot water, using chain hoist. May adjust heat and pressure controls.

ISCO 08 Unit Group Details:

Code 8142

Title Plastic Products Machine Operators

8142.0300**Extruding Machine Setter (Plastic)**

Extruding Machine Setter (Plastics) sets and adjusts die and extrusion machine to form dry or dough-like plastics into continuous rod, tube, strip or similar shape of desired dimensions. Installs dies, machine screws and sizing rings, using hand tools; couples hose to die holder to circulate steam, water, air or oil to die; fills machine hopper with materials, using conveyor auger or stuffs rolls of plastic dough into machine cylinders; starts machine and sets controls to regulate vacuum, air pressure, sizing rings and temperature and synchronizes speed of extrusion with pulling rolls; examines extruded sample product for defects, such as wrinkles, bubbles and splits. Measures

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

extruded articles for conformance to specifications using micrometres, callipers and gauges and makes adjustments by regulating speed and weight controls or manipulating hot and cold water, air, oil or steam valves and observing gauges so as to obtain forms of specified dimensions.

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.0400 Extruding Machine Operator (Plastic)

Extruding Machine Operator (Plastics) operates machine to extrude thermoplastic materials to form tubes, rods and film, according to specifications. Weighs and mixes pelletized, granular, or powdered thermoplastic materials and colouring pigments in tumbling machine set by Extruding Machine Setter (Plastics) couples hose to die holder to circulate steam, water, air or oil to die; fills machine hopper with mixed materials or stuffs rolls of plastic dough into machine cylinders; starts machine and synchronizes speed of conveyor belt with speed of extrusion through die; examines extruded product for defects, such as wrinkles, bubbles and splits; measures extruded articles for conformance to specifications, using micrometres, callipers and gauges and adjusts speed and weight, controls or turns hot and cold water, air, oil or steam valves to obtain product of specified dimensions. May reel extruded product into rolls of specified length and weight. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 8142

Title Plastic Products Machine Operators

8142.0501 Injection Moulding Machine Operator (Plastic)

Injection Moulding Machine Operator (Plastics) sets up and operates injection-moulding machines to cast products from thermoplastic materials. Installs dies on machine, according to work order specifications, using clamps, bolts, and hand-tools; sets thermostatic controls to obtain specified moulding temperature; dumps pre-mixed plastic powders or pellets into hopper and starts machine; pulls lever to close dies and inject into dies to cast part; removes finished product from dies, using hand tools and trims excess material from part using knife. May mix thermoplastic materials and colouring pigments in mixing machine, according to formulae. May grind scrap plastic into powders for reuse.

Qualification Pack Details:

QP NOS Reference ELE/Q3501
QP NOS Name Injection Moulding Machine Operator
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.0502 Moulding Operator

Moulding Operator is a skilled operator capable to operate PU pouring machines and Injection moulding machine used in lasting process and also skilful to perform

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

basic supervisory tasks to monitor the performance of the workers.

Qualification Pack Details:

QP NOS Reference	LSS/N9101
QP NOS Name	Moulding Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8142
Title	Plastic Products Machine Operators

8142.0503

Encapsulation Operator

The Encapsulation Operator is responsible for providing cover to the lead frame or assembled LED by filling with epoxy. The individual at work operates the moulding press for active components or manually fills epoxy in the reflector-cum-PCB of LED and processes to complete the encapsulation.

Qualification Pack Details:

QP NOS Reference	ELE/Q1703
QP NOS Name	Encapsulation Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8142
Title	Plastic Products Machine Operators

8142.0600

Compression Moulding Machine Operator (Plastic)

Compression Moulding Machine Operator (Plastics) sets up and operates compression moulding machines to mould plastics products by heat and pressure according to specifications. Installs dies on

press, using clamps, bolts, and hand tools and coats dies with parting agents; sets thermostat to regulate temperature of dies; weighs premixed plastic compound and pours compound into die well, or spreads fabric on die and dumps compound over fabric; pulls lever to lower hydraulic ram that compresses compound between dies to form and cure part; removes cured part from mould, using hand tools and air hose. May mix catalysts and colouring pigments with plastic compound, using paddle and mixing machine. May operate compression moulding machines to form product under pressure only and be designated COLD-MOULDING-PRESS OPERATOR.

ISCO 08 Unit Group Details:

Code	8142
Title	Plastic Products Machine Operators

8142.0700

Bottle Blowing Machine Operator (Plastic)

Bottle Blowing Machine Operator (Plastics) feeds thermo-plastics material into hopper and operates buttons and levers of bottle blowing machine to extrude tube like material and pumps air to shape it into form of mould. Weighs and mixes pelletized, granular, or powdered thermoplastic materials and colouring pigments in tumbling machine according to formula; installs dies, machine screws, sizing rings, using hand-tools; and couples hose to die holder to circulate steam, water, air or oil to die; fills machine hopper with mixed materials or stuffs rolls of plastic dough into machine cylinders; starts machine and sets controls to regulate vacuum, air pressure, sizing rings and temperature; depresses lever of machine and ensures

that parison tube reaches entire length of mould or die; cuts ends of tube with scissors near nozzle and blows air into mould by operating pump; opens moulds and removes finished article. Repeats process.

ISCO 08 Unit Group Details:

Code 8142

Title Plastic Products Machine Operators

**8142.0800
Vacuum Plastic Forming Machine Operator**

Vacuum Plastic Forming Machine Operator tends machine that moulds thermoplastic sheets into products, such as automobile pillar posts, nose pieces, rear quarter-panel covers, and toys. Places plastics sheet on top of mould, positions sealing frame around sheet, and fastens frame to rim of mould with clamps. Pushes button to start machine that heats sheet, draws it into mould to form product, and sprays product with cold water or air to harden it. Removes product from mould and reloads thermoplastic sheet into machine. May trim excessive moulding material from products, using knife, scissors, or band saw. May set up machine to form products.

ISCO 08 Unit Group Details:

Code 8142

Title Plastic Products Machine Operators

**8142.0900
Embossing Machine Setter (Plastic)**

Embossing Machine Setter (Plastics) sets up embossing machine that stamps and

embosses design on plastic sheets. Installs and locks embossed plate in chase and locks chase in bed of press. Lays piece of card board on machine bed under plate and impresses it with plate. Cuts out impression and glues it to bed under plate adjusting table in order that impression and plate are in exact alignment; sets guides to hold plastics sheet in position under plate and adjusts table height to impart correct depth of impression. Starts machine and places sample piece of plastics sheet in guides and pushes it under embossing plate. Inspects embossing on sample for correct depth of identification and correct faults as necessary.

ISCO 08 Unit Group Details:

Code 8142

Title Plastic Products Machine Operators

**8142.1000
Embossing Machine Operator (Plastic)**

Embossing Machine Operator (Plastics) feeds and operates embossing machine to stamp and emboss designs on plastics sheets. Installs engraved embossing roller, pressure roller and roll of plastics sheets to be embossed in machine by hand or using hoist; manipulates lever or clutch to regulate pressure between rollers; threads plastics sheet through machine and regulates flow of steam into rollers to counteract curling of sheet and to obtain desired depth of embossing or surface shine to sheet; starts machine, examines embossed sheet and makes adjustments to secure desired results; adjusts rotary cutting device to cut sheets or tend winding machine to wind embossed sheet into rolls. May feed plastics sheets to machine.

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.1100

Printing Machine Operator (Plastic)

Printing Machine Operator; Printer (Plastics) sets up and operates printing machine to print colour designs on rolls of plastics material. Positions and clamps printing cylinder on press, using hand tools; pours inks into ink pans and threads plastics film through press rolls; starts press and turns wheels to adjust pick up, transfer, and printing rolls, turns rheostats to regulate speed and feed of press, and temperature of drying box, examines printed sheet to detect defects, such as wrinkles, tears, smeared printing, and uneven colour distribution, cleans and oils press, and repairs or replaces broken or worn parts of press, using hand tools. May set print on printing cylinder and blend coloured inks, according to job order.

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.1200

Button Maker

Button Maker performs one or more hand or machine tasks in making of buttons. Cuts button blanks from various materials such as composition or vegetable material, ivory or pearl by hand or with automatic cutting machine; removes rough edges, levels back and front of button blanks and reduces them to uniform thickness using automatic

machines; makes holes in buttons by means of automatic drilling machine; cleans buttons prior to polishing by dipping them in chemicals and wiping them dry; polishes buttons by means of revolving buffer; examines finished buttons and rejects faulty ones. May be designated according to job performed such as BUTTON HOLE DRILLING MACHINE OPERATOR, BUFFING MACHINE OPERATOR.

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.1300

Mould Setter (Plastic)

Mould Setter (Plastics) sets up and adjusts compression, injection and similar type of machines used to mould plastic materials to specified shape. Positions assembled mould on press bed of moulding machine or bolts matrix of unassembled mould to bed and aligns die (attached to ram) with matrix; adjusts stroke of ram, using hand tools. Connects steam, oil or water lines to mould or moves controls to regulate mould temperature; sets machine controls to regulate forming pressure of machine and curing time of plastic in mould; installs knock-out pins in mould, and makes other adjustments, using hand-tools; starts machine to produce sample products; examines sample for surface defects, such as bumps, bubbles, and scratches, and adjusts machine set up to eliminate defects; removes, cleans, and greases moulds and places them in storage racks. May supply plastic materials to moulding machines. May direct supplying of necessary equipment, such as jigs, containers or forms to workers engaged in tending moulding

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machines. May be designated according to type of machine set up, as COMPRESSION-MOULDING MACHINE SET-UP MAN; INJECTION MOULDING MACHINE SET-UP MAN.

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.1301 Plastic Moulding Technician or Operator

Plastic Moulding Technician or Operator manages the specifications of the plastic and its granules, setting up and operating the moulding machinery and forming and finishing the output.

Qualification Pack Details:

QP NOS Reference	ASC/Q4401
QP NOS Name	Plastic Moulding Technician or Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.1400 Moulder, Hand (Plastic)

Moulder, Hand (Plastics) moulds plastics sheets into desired shapes in hand moulding press. Studies specifications for moulded product and assembles mould. Determines weight of charge, pressure, temperature and curing time for moulding; collects plastic sheets, cuts them to required size and heats them on electrically operated heater to soften for

moulding; removes sheet when sufficiently heated and places it in female of wooden mould, fixes wooden slab of mould to keep sheet in position and inserts male block of mould; sets mould in hand press and manipulates controls to compress material and form material to shape of mould; removes moulded plastics object after specified time-interval by opening mould; examines and gauges product for conformity to plant or customer standards. May make minor adjustments in moulding procedure to eliminate defects, and remould product.

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.1500 Cementer (Plastic)

Cementer; Assembler (Plastics) joins plastics sheets and moulded parts with solvents, steel plates, screws, etc. Selects plastics sheets of specified dimensions; arranges them according to pattern to give required shape. Smoothens and cleans parts to be assembled; Brushes parts with cement or dips them into tank containing cement. Assembles parts on jig and secures them in position with clamps until cement hardens. May join by using screws and steel plates, etc.

ISCO 08 Unit Group Details:

Code 8142
Title Plastic Products Machine Operators

8142.1600

Plastic Fabricator

Plastics Fabricator fabricates, assembles, reworks, and repairs plastic products, applying knowledge of working characteristics of plastics and bonding techniques, using precision instruments, hand tools, power tools, machines, and equipment: Reads and interprets blueprints, work orders, and related documentation to determine methods and sequence of operations and dimensional and finish specifications. Lays out cutting lines on plastic materials, such as sheet stock and fibreglass or graphite cloth, following template pattern, blueprints, sketches, or sample part, using measuring and marking instruments. Cuts material to size, using shears, knives, cutters, scissors, router, or saw. Mixes ingredients, such as resins, catalysts, fillers, accelerators, and colours, according to formulae, manually or using mixer. Sets up and operates forming machines and presses, or laminates plastic cloth and resins or pre-impregnated cloth onto layup mold or bonding fixture, to shape parts. Wraps bonding fixture or mold in vacuum bagging materials, exhausts air from vacuum bag to prepare lamination for curing or bonding. Operates oven to cure parts. Trims, drills, reams, countersinks, grinds, and finishes parts to specifications, using templates, hand tools, and power tools. Verifies dimensions of parts, using precision instruments, such as dial indicators, micrometres, and callipers. Fits and assembles parts and attaches hardware and fittings, such as brackets and hinges, using clamps, jigs, fixtures, power tools, and fasteners. Repairs and reworks damaged or defective parts and assemblies by lay up, foaming, cementing, moulding, potting, casting, or similar methods. May heat parts or materials to

facilitate shaping, using oven or heat gun. May fabricate and assemble parts from fibre reinforced plastics (composites) and assorted materials, such as metal and honeycomb.

ISCO 08 Unit Group Details:

Code 8142

Title Plastic Products Machine Operators

8142.9900

Plastic Products Making Operatives, Other

Plastics Products Making Operatives perform number of routine and low skilled tasks in manufacturing plastics products, such as arranging and loading plastics or plastics impregnated sheets, assisting Printing Machine Operator, cleaning and finishing moulded plastics products etc. and are designated as: Laminating Press Helper (Plastics) if assists Laminating Press Operator by counting sheets of resin-impregnated wood, fabric, paper, or other materials, by wiping surface of metal plates with cloth and special solution to prevent sticking, and by stacking sheets between plain or engraved plates.

ISCO 08 Unit Group Details:

Code 8142

Title Plastic Products Machine Operators

Family 8143

Paper Products Machine Operators

Paper Products Machine Operators operate and monitor machines which produce boxes, envelopes, bags and other goods from paper, paperboard, cardboard and similar materials.

8143.0100

Cardboard Box Maker

Cardboard Box Maker cuts cardboard pieces to required size and shape, folds, ends and joints to make cardboard boxes. Collects required quantity of cardboard or paper-board blanks. Cuts blanks to required size according to design or specification, by hand or machine; folds sheets along cut or grooved edges to make flaps for sides, top and bottom; glues ends or edges to make cartons or boxes, or fastens parts together with pins using stapling machine. Covers boxes by gluing protective or decorative paper. May operate gluing, bending, cutting, creasing and pinning machines to glue. Fold or cut cardboards and staple them. May impregnate box by dipping it in melted wax. May be designated as Paperboard Box Maker, if using paperboard for making boxes, containers, etc. May be designated as Cardboard/Paperboard Box Maker, Machine if producing cardboard or paperboard boxes on machine.

ISCO 08 Unit Group Details:

Code 8143

Title Paper Products Machine Operators

8143.0200

Envelope Maker, Machine

Envelope Maker, Machine; Envelope Folder; Paper Bag Maker, Machine cuts, folds and glues edges of paper to make envelopes and paper bags of required sizes. Collects required quality and quantity of paper; studies specifications. Sets and adjusts machine to cut and fold paper to size of envelope or paper bag to be made. Feeds blank sheets or roll of

paper into machine; pours into hopper of machine and regulates its flow; sets cutting, gluing and folding devices. Presses button to start machine; observes progress, stops machine to correct faulty operation; and discharges completed envelopes, bags in containers. Examines finished products for quality and makes necessary adjustments to machine to obtain products of correct specifications. May mix glue solution. May also set and operate a semi-automatic or automatic machine equipped for printing on products made. May be designated as ENVELOPE MAKER OR PAPER BAG MAKER, HAND, if produces envelopes or paper bags by hand, cutting paper to required size, folding and joining ends together.

ISCO 08 Unit Group Details:

Code 8143

Title Paper Products Machine Operators

8143.0300

Cellophane Bag Maker, Machine

Cellophane Bag Maker, Machine sets and operates machine that forms cellophane into bags. Sets into machine metal form on which to shape bag; loads roll of cellophane on spindle of machine; threads cellophane through folding, cutting and gluing devices; adjusts machine to produce bags of specified size. Starts machine by switching on power; observes operation by adjusting tension of parts and material, examines finished products for quality and specification. May set and operate machine also equipped for printing information and decoration on bags. May make bags from other materials such as paper etc.

ISCO 08 Unit Group Details:

Code 8143

Title Paper Products Machine Operators

8143.0400

Flower Maker, Paper

Flower Maker, Paper makes leaves and flower petals of paper of different shades and colours sets them on wire or bamboo wickers. Collects paper sheets of required quantity, colours and shades for making flowers of desired type; folds and cuts paper by hand, using pair of scissors or cutting die for mass production, for preparing flower petals, leaves, etc., shapes, twists and trims, cut bits to form into petals and leaves of desired pattern; assembles petals and leaves together by gluing around wire stem to make into buds; gives finishing touches by trimming and clipping edges and arranging them to form bunches or bouquet. May make flowers from cloth or other material. May prepare novelties, such as Chinese lanterns, flower festoons and paper hand-fans.

ISCO 08 Unit Group Details:

Code 8143

Title Paper Products Machine Operators

8143.0500

Papier Mache Moulder

Papier Mache Moulder prepares 'papier Mache' by mixing glue or rosin with paper pulp and makes statues, toys and other novelties by moulding 'papier Mache' to shape using patterns. Mixes paper pulp, glue and limestone powder in water to make into paste; prepares papier sheets out of paste by using hand roller; takes two halves' of appropriate mould or die figure or toy, and greases inside of form-mould 'halves' with brush; places wet 'papier Mache' sheets over mould and presses it hard with hand to form impression on 'papier Mache', builds up

form to desired thickness, fitting and smoothing each sheet to mould; places two halves of mould together, pastes and presses lap projections of each half of form together, and leaves mould and cast for drying. Removes completed form from moulds after specified period; trims and smoothens edges, using sand paper, and fixes attachments as required. Places finished products for drying and paints giving finishing touches with ornamental decoration. May prepare own colour schemes for painting forms. May design own patterns.

ISCO 08 Unit Group Details:

Code 8143

Title Paper Products Machine Operators

8143.9900

Paper Product Makers, Other

Paper Product Maker, Other Makes other paper products not elsewhere classified such as Tube Maker, Paper, if operates power-operated machine which rolls paper and makes finished paper tubes of required size for use as cover or tubes for dry battery cells. Paper Coater, if tends and adjusts machine which coats paper or board with binding medium and mineral matter or with tinfoil paste. Colourman, if mixes material and colours used for coating paper on board. Paper-Novelty Maker if makes paper candy and nut cups and miscellaneous paper novelties such as hats, party favours, etc.

ISCO 08 Unit Group Details:

Code 8143

Title Paper Products Machine Operators

Group 815

Textile, Fur and Leather Products Machine Operators

Textile, Fur and Leather Products Machine Operators operate and monitor various types of machines which prepare, process and treat fibres, yarn, thread, leather, fur; produce, modify and repair footwear, garments and manufacture or dry clean textiles or fur and light leather articles.

Occupations in this Group are classified into the following Families:

8151	Fibre Preparing, Spinning and Winding Machine Operators
8152	Weaving and Knitting Machine Operators
8153	Sewing Machine Operators
8154	Bleaching, Dyeing and Cleaning Machine Operators
8155	Fur and Leather Preparing Machine Operators
8156	Shoe Making and Related Machine Operators
8157	Laundry Machine Operators
8159	Textile, Fur and Leather Products Machine Operators, Not Elsewhere Classified

Family 8151 Fibre Preparing, Spinning and Winding Machine Operators

Fibre Preparing, Spinning and Winding Machine Operators operate and monitor machines which prepare fibres, and spin, double, twist and wind yarn and thread from natural textile fibres. They twist two or more strands of yarn to prepare single stronger, smoother, uniform and heavier strands and treat textiles to make them stiff and water resistant.

8151.0100 Garnette Machine Man, Woollen

Garnette Machine Man, Wool tends garnette machine for cleaning and turning woollen yarn waste into fluffed wool. Collects woollen thread waste near feed end of garnette machine. Starts machine, picks up woollen waste yarn by hand and spreads it evenly on lattice of machine for cleaning and turning it into fluffed wool. Removes waste wool from doffer drum of machine using hand brush and iron nail and ensures running of machine. Cleans and oils machine. May cut hard knots if detected in woollen waste yarn with knife.

ISCO 08 Unit Group Details:

Code 8151
Title Fibre Preparing, Spinning and Winding Machine Operators

8151.0300 Rag Machine Man (Woollen Textile)

Rag Machine Man (Woollen Textile) tends and feeds rag machine for tearing woollen rags into fibre. Collects cuttings, rags and woollen cloth near feed end of machine. Sprinkles prescribed quantity of oil on rags using sprinkler to soften it. Starts machine, picks up handful of oiled rags and feeds them on lattice of machine. Spreads rags with hand on lattice evenly. Maintains regular feed of rags and their flow. Avoids choking of rage machine. Processes rags and turns it into fibrous condition. Removes waste from machine parts and cleans machine. May oil and clean machine.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.0400

Doubling-Machine Operator (Textile)

Doubling Machine Operator (Textile) tends machine that winds two or more strands of yarn parallel onto bobbin or tube preparatory to twisting: Places supply packages in creel and draws yarn ends through machine guides and tensions onto take up tube. Starts machine and observes operation to detect yarn breaks, exhausting yarn supply and full packages on take up tubes. Pieces up yarn breaks, using knotter. Replaces supply packages in creel. Doffs full packages.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.0500

Combing Tenter

Combing Tenter; Comberman (Cotton Textile) tends combing machine for combing or separating short fibres from long ones and converting lap into sliver preparatory to drawing. Places lap rolls or spools in proper position on creel of combing machine. Pulls out and leads ends of lap through assembly on to feed-rolls. Sets calender rollers to position and starts machine. Watches running of sliver through machine. Detects and joins broken ends of sliver. Removes surplus sliver after stopping machine to avoid jamming and when necessary. Leads web coming through funnel like guide into can

at delivery end and replaces filled can with empties. Removes waste sliver rolls from back of machine to specified place or to waste bag. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.0600

Spinner, Frame (Textile)/Ring Frame Tenter

Spinner, Frame (Textile) tends spinning frame that draws out and twists roving or sliver into yarn: Patrols work area and observes spinning to detect nearly exhausted supply packages and breaks in yarn, roving, and sliver. Pieces up breaks in yarn, roving, and sliver and replaces nearly exhausted supply packages with full packages. Twists end of material from supply package to material in machine or threads material from supply package through machine guides and drawing rollers. Brushes yarn or lint from drawing rollers, guides, and rails. Notifies designated personnel of machine malfunction. May doff machine.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.0700

Drawing Tenter

Drawing Tenter; Draw Frame Tenter; Drawing Feeder; Drawing Receivers (Textile) tends draw frame (machine) having number of drawing sets, each set combining several slivers into one of nearly same weight and thickness as any

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

of original sliver. Arranges number of cans full of card or comber sliver at rear of drawing machine. Threads ends of sliver from cans through machine. Replaces empty cans with filled cans, joining ends of slivers by matting and rolling them together with fingers. Watches slivers running into machine and joins broken ends. Replaces cans when filled at delivery end with empty ones. Cleans machine and may oil and varnish top rollers.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1000

Reeler Textile

Reeler, Textile operates reeling machine for winding yarn from bobbins or cops into coils (skeins or hanks) places yarn bobbins or cops on spindles of machine, pulls ends of yarn from each bobbin or cop through guide hook and traverse rail and loops it to pin on reel. Sets dial that measures yardage of yarn wound. Turns reel by operating lever or by hand so that yarn is pulled from bobbins or cops and wound into coils. Replaces cops or bobbins when empty with filled ones and knots loose ends from new cops or bobbins to tail ends of coils. Stops machine when coils of prescribed yardage are made and removes coils from reel. May collect together required number of coil or hanks and make them in knots by hand. Is designated as RE-REELER or HAND MAKER when reeling silk yarn.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1100

Reed Man

Reed Man; Reed Repairer (Textile) repairs and replaces broken or defective reeds to be used in weaving. Locates defective or broken dents (wires) in reed frame, cuts out defective portions and nails new piece in place and repairs damaged frames.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1200

Healdman (Textile)

Healdman; Heald Repairer (Textile) repairs and replaces broken or defective healds, pulls out or cuts them with scissors or pliers and fastens new ones in their place by hand or by twisting them into position with pliers.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1300

Reeler, Silk

Reeler, Silk places cooked cocoons in basins of reeling machine, containing tapered water. Stirs cocoons in water with fingers and draws loose ends of silk filament from each cocoon. Collects four or five loose ends together to form one yearn or composite filament depending on type of thickness of yarn required. Draws ends of silk yarn through hole of button of reeling machine and over pulleys. Fastens or ties ends to reel fitted to machine. Starts machine and tends

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

reeling basis to draw out silk filament from cooked cocoons. Ensures that silk yarn or filament is drawn from each cocoon and twisted and reeled in reeling frame. Feeds fresh ends of silk filament from fresh cocoons by throwing ends of filament by hand to one already being reeled and ensures that continuity of reeling and thickness of filament is maintained. Stops machine when silk filament gets broken. Traces ends from reel and restores continuity by knotting ends together by hand. Restarts machine and continues reeling. Replaces empty spool or reel over machine when existing reel is fully wound. Collects waste filament from basin and dries it in sun for use as waste silk after teasing and cleaning. May oil and clean machine. May re-reel silk thread from small to standard reels to form hanks.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1400

Yarn Tester

Yarn Tester tests yarn by using various instruments for ascertaining its strength, elasticity, thickness, neatness, etc. conducts various tests such as 'winding-breaks, test' to ascertain continuity of hank, 'size test' by using sizing-skein-winder to find out thickness of yarn 'seriplane test' to find out uniformity and neatness of yarns 'serigraph test' to check strength and elasticity, cohesion test' to find out extent of wear and tear yarn will stand, 'conditioning oven test' to fix standard weight.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1500

Wrapping Boy (Textile)/Wrapper

Wrapping Boy; Wrapper (Textile) aids in testing wrappings (samples) of sliver, roving and yarn for count and strength. Collects samples of, in specified length, roving and yarn from drawing and spinning departments. Weighs each length on scale. Fixes each sample of yarn on testing machine and assists Yarn Tester in ascertaining strength, elasticity, twist per inch, thickness and uniformity. Cleans and oils the machine. May operate Yarn examining Board to test evenness of the yarn. May check weight of yarn against count. May record temperature and humidity readings.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1600

Pin Setter (Textile)

Pin Setter; Needler (Textile) replaces pins or needles in comb circle and gill box collar of combing and gill box machines. Examines pins and pulls out defective ones with pliers. Cleans pin slots, hammers in new pins taking care that they are set straight and firmly. Cleans trash from pins.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1700

Roller Coverer

Roller Coverer; Roll Covering Man operates and resurfaces metal drawing rolls of various spinning, combing and lapping machines with new rubber or leather covers. Cuts defective cover from drawing roll and uses it as pattern for cutting new one from rubber or leather. washes roller with steam or caustic soda solution. Inserts cover and metal roller into roller cover machine which automatically mounts cover on roller. Transfers roller to buffing machine and buffs cover to smooth surface and uniform thickness. Varnishes cleaned roller and wraps with flannel replacing leather cover. Forms leather sleeve by gluing together sides of previously cut leather cover; pulls sleeve by gluing together sides of previously cut leather cover; pulls sleeve over roller with aid of hand operated device and seals ends of leather cover by painting with chemical solution. May substitute cork or other synthetic covering for rubber or leather.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1800

Winder Textile/Winding Operator

Winder (Textile) tends winding machine for winding yarn from hanks to bobbins or from spinning bobbins to other bobbins, spools, cones, cheeses, etc. Mounts, by hand, hanks on swift (reel) or mounts full bobbins, cones, etc., on stands of machine. Draws end of yarn from each hank or full bobbin, through guide and tension arm and loops it round rotating empty bobbin, cone, cheese or spool, for

winding. Pieces broken ends. Removes wound cones, cheeses, spools, etc., from spindles and replaces them with empty ones. Is designated as GREY WINDER, PIRN WINDER, CHEESE WINDER, CONE WINDER, SPOOL WINDER, COP WINDER, UNIVERSAL WINDER, COLOUR WINDER, TAILING MAN, etc., according to type of machine operated and bobbin or spool used.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.1900

Size Mixer (Textile)

Size Mixer; Starch Mixer (Textile) prepares sizing for use in stiffening and finishing cloth and yarn. Measures or weighs ingredients such as starch, tallow, resins, soaps and water according to instructions, mixes them in tank of mixer, opens steam valve and allows mixture to mix and boil for specified time. Opens outlet valve to discharge contents to sizing department. Cleans mixer and measuring pots.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.2000

Waterproofer, Textile

Waterproofer, Textile treats textiles with chemicals (other than rubber) to make them water resistant. Fills container with chemical solution (other than rubber) and controls its temperature. Feeds lengths of material into rollers and joins ends together. Passes material through rollers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

into solution until it is impregnated and removes folds and creases, if any. Cleans equipment and maintains them in working order. May combine dyeing process with waterproofing; chemicals used and experience of controlling solution temperature; knowledge of combining dyeing process with waterproofing and if also able to treat textiles with rubber.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.2100

Weighter, Silk

Weighter, Silk treats silk with solutions of tin and phosphates (chemicals) to give it weight or body. Wraps silk in blanket or coarse canvas and places it in container of centrifugal machine. Pumps solution of tin from mixing vat into machine and runs it for set period, keeping material immersed in solution. Draws off solution and transfers material to spray-washing machine. Returns material to centrifugal machine containing phosphates and runs it to fix tin to silk. Repeats process, as necessary to obtain desired weight.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.2200

Fetler (Woollen Textile)

Fetler (Woollen Textile) cleans rollers and cylinders of carding machines to remove wool waste. Removes, slides off, or otherwise disconnects belts and chains that drive machine. Climbs on machine,

slowly rotates rollers and cylinders by hand picks out accumulated dirt, fibres and foreign matter and assures that moving parts operate freely. Reconnects drive mechanism. Attends to cards until cards get filled with material. Assists Condenser Minder in taking out ends and putting them on proper position on condenser bobbins. May attend to card mounting and assist in repair work of cards.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

8151.9900

Fibre Preparing, Spinning and Winding Machine Operators, Other

Fibre Preparing, Spinning and Winding Machine Operators, Other include workers who operate and monitor machines which prepare fibres, and spin, double, twist and wind yarn and thread not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8151

Title Fibre Preparing, Spinning and Winding Machine Operators

Family 8152

Weaving and Knitting Machine Operators

Weaving and Knitting Machine Operators set up, operate and monitor weaving and knitting machines which process yarn or thread into woven, non-woven and knitted products such as cloth, lace,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

carpets, rope, industrial fabric, hosiery and knitted garments or to quilt and embroider fabric.

8152.0100 Drawing Man

Drawing Man; Drawer; Reducer (Woollen Textile) tends drawing frame for drawing wool sliver into yarn. Fixes empty bobbins on spindles. Arranges sliver cans at feed end of drawing frame. Draws sliver from can and passes them through guides, rollers and gill-box and loops them around bobbins on spindle. Starts drawing frame. Detects broken ends, stops machine and pieces (joins) them by hand. Ensures continuous flow of sliver. Removes jamming when necessary by stopping machine and withdrawing surplus wool. Replaces filled bobbins with empty ones. Removes waste wool from machine and work area. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 8152
Title Weaving and Knitting Machine Operators

8152.0200 Doffer, Fly Frame/Speed Frame Operator

Doffer, Fly Frame: Doffer Boy (Textile) replaces bobbins filled at slubbing, inter or roving frames with empty bobbins. Brings empty bobbins and keeps them in between spindles. Removes filled bobbins from spindles and places empties instead. Loops ends of rovings around empty bobbins for winding. Cleans frames.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.0300 Knitting Jobber

Knitting Jobber; Knitting Mistry; Knitting Machine Fixer; Fixer, Knitting Machine sets and adjusts knitting machines according to design, shape and size of product desired. Inspects product of machines for defects in knitting and makes necessary adjustments. Replaces broken or worn out parts. Repairs and overhauls machines. Supervises work of knitters and ensures quality and production.

ISCO 08 Unit Group Details:

Code 8152
Title Weaving and Knitting Machine Operators

8152.0400 Card Cutter

Card Cutter; Punch Operator (Textile) operates card cutting machine for punching holes in card used for controlling pattern of cloth woven on jacquard or dobby looms. Studies designs. Spreads graph paper on table and prepares draft and plan for design, indicating places where warp is to be raised over weft. Fixes graph paper containing design on machine board. Inserts plan card into cutting machine equipped with key-board. Depresses key with fingers to punch holes into card as per diagram for controlling pattern on cloth woven. Presses lever by leg to push punched card into inner portion of machine making room for punching unpunched portion. Numbers punched cards serially and inserts them in pegs in stand for subsequent lacing. Fixes and adjusts heald and card chain on

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

jacquard machine. May prepare design for lattice pegging. May do lacing of cards by hand or machine to make complete design. May do lattice pegging. May fix up heald and lattice on dobby loom.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.0500

Mat Shearing Operator

Mat Shearing; Mat Trimmer (Coir) operates shearing and trimming machine to make surface and edges of mats even. Sets machine depth of shearing by adjusting gap between roller and blades. Feeds mat into machine which clips off high fibres. Trims sheared mat on all sides by holding aides between blades and roller. Removes loose fibres from surface. May repeat process if additional shearing is required.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.0600

Flat Knitter, Machine/Knitting Machine Operator-Flat Knitting

Flat Knitter, Machine-Flat Knitting Machine Operator; Flat Knitting Machine Man operates knitting machine for producing flat fabric (as distinct from tubular or circular fabric). Places cones of yarn on stand of machine and threads ends of yarn through guides and feeders. Starts machine. Replaces empty cones with filled ones and joins broken ends. Cleans machine. Replaces defective or

broken needles. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.0700

Sock Knitter/Knitting machine Operator-Socks Knitting

Sock Knitter; Sock Knitting Machine Man; Sock Knitting Machine Operator operates machine for knitting heel and toes of socks into ribs or tops cut from circular fabric. Places cones of yarn on stand of machine. Threads yarn through guides and feeders. Sets loops of one end of top on pins of transfer dial or ring, sets transfer ring by hand over needles of knitting machine and turns handle that transfers loops from pins of ring to needles of machine. Starts machine that knits rest of sock into top. Removes knitted material from machine. Replaces empty cones with full ones and joins ends. Replaces defective or broken needles. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.0800

Sock Knitter, Automatic Machine

Sock Knitter, Automatic Machine; Automatic Sock Knitting Machine Operator operates knitting machine for knitting all parts of sock such as rib top or elastic top, leg, heel, foot and toe in continuous tube. Adjusts machine according to size of sock to be knitted.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Places filled cones of yarn on stand of machine. Threads ends of yarn through guides and feeders. Turns cylinder by handle so that all ends are caught by latches of needles set in cylinder. Starts machine. Replaces empty cones with full ones and joins ends. Replaces defective or broken needles and sinkers (mechanism that pushes thread over needles to form new loops). Oils and cleans machine.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.0900

Knitter, Machine/Knitting Machine Operator

Knitter, Machine; Circular Knitting Machine Tenter; Circular Knitter, Tube Knitter operates one or more machines that knit seamless circular or tubular fabric from yarn. Places filled cones of yarn on stand of machine. Threads ends of yarn from cones through guides, tension springs and feeders and turns cylinder by handle so that yarn is caught by latches of all needles in cylinder. Starts machine which automatically knits fabric. Watches for defects in knitting. Replaces empty cones with full ones and joins ends. Removes knitted fabric by cutting it with scissors. Cleans and oils machine. Replaces broken or defective needles and sinkers (mechanism that pushes thread over needles to form new loops).

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.1000

Looper Man, Hosiery

Looper Man, Hosiery; Linking Machine Operator, Hosiery; Linking Machine Man Hosiery operates machine which seams openings in toes of socks. Places cones of yarn on stand of machine, and threads yarn through guide, tension disc and eye of needle. Sets loops of socks on looper pins or points of a circular dial. Starts machine. Replaces empty cone with filled one; cleans and oils machine and replaces defective pins.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.1100

Warp Knitter/Knitting Machine Operator-Warp Knitter

Warp Knitter tends machine for knitting fabric used for mosquito nets, curtains etc. Mounts yarn beam on frame of machine. Draws ends of yarn from beam through guides and feeders. Operates machine by hand till knitted fabric reaches roller. Ties end of fabric to roller. Starts machine and joins broken ends as necessary. Cuts and removes knitted fabric from machine. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.1200

Weaver, Lace (Machine)

Weaver, Lace (Machine) operates lace-making machines to weave lace according

to set pattern. Starts machine and ensures that weaving is proceeding correctly. Mends broken threads by hand and removes faulty pieces. Keeps machine supplied with yarn. Reports mechanical faults to Jobber to get defects removed. May pass threads through machine guides in preparation for weaving and make minor adjustments.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.1300

Braid Maker, Machine/Braiding Machine Operator

Braid Maker, Machine operates one or more machines to interweave threads into tabular cord or narrow band. Passes thread through machine guides. Starts machine and ensures that braiding is processing correctly. Maintains supply of thread and mends breakages.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.1400

Lace Maker (Machine)

Lace Maker, Machine; Crocheter, Machine operates crochet machines to knit lace, trimming etc. of desired pattern or design. Selects pattern of lace or trimming and places bobbins of selected threads on machine. Passes ends of thread from each bobbin through machine guides and eye of machine needle. Knots ends together and passes it over reel on machine. Adjusts machine for thread tension and clockwise or anti-clockwise movement of

spindles according to pattern of lace, knit required, etc. Starts machine. Arranges material in position for crocheting and guides it under needle. Detects and joins broken ends of thread by hand as necessary. Checks running of yarn through each spindle. Stops machine and replaces empty bobbins and broken needles during operation. Collects knitted lace, trimmings, etc.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.1600

Warp Tying Machine Man

Warp-Tying Machine Man operates warp-tying machine which knots warp ends from filled loom beam to ends from exhausted beam. Checks if both beams have been properly set on warp-tying frame and ties lease string to separate layers of yarn on beams. Sets machine in frame, turns hand crank to see if machine gathers end correctly and adjusts machine if necessary. Switches on machine for automatic knotting of ends. Knots, by hand ends not tied by machine. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.1700

Warper

Warper; Beamer tends warping machine for drawing and winding on a large spool (beam) many strands of yarn from several cones, cheeses or bobbins arranged on a creel. Fixes empty beam or drum in

brackets of machine. Adjusts length gauge. Draws each thread through appropriate guide, dent and drop pin. Fastens all ends to beam or loops them on hook of drum. Starts machine and observes winding of yarn on beam whenever machine stops automatically, gets end of yarn brought from creel by Endman and pieces ends. Stops machine when required length has been wound, cuts yarn strands between comb and beam, knots all ends together into two or three bunches and removes beam from machine with help of Endman. Is designated as BEAMER when warping yarn from section drums to weaver's beam.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.2000

Front Sizer (Cotton Textile)

Front Sizer (Cotton Textile) tends sizing machine for drawing warp yarn through sizing solution and drawing devices to condition and strengthen it and to wind it on the weaver's beam. Lifts warp beams assisted by Back Sizer and puts them on back creel or machine by hand or by chain pulley. Gathers ends into bunches and ties them to corresponding bunches of ends left threaded through machine from previous run. Pulls ends from warp beam, when machine is empty, through sow box, around drying cylinders and on to weavers beam set in brackets in front of machine. Counts and distributes ends in wraith (zigzag comb) according to specified pattern. Starts machine. Detects broken ends during run of machine, slows down machine, twists together broken ends of corresponding ends and returns machine to normal speed. Ensures that yarn

receives proper amount and consistency of size and is being dried sufficiently. Stops machine when required amount of warp has been wound on weaver's beam. Cuts warp yarn, ties ends into 2 to 3 bunches or ties a gum tape and removes weaver's beam with overhead hoist or by hand. Supervises work of Back Sizer. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.2100

Back Sizer

Back Sizer (Cotton Textile) assists Front Sizer in setting and operating sizing machine. Helps in loading warp beams on back creel of machine by hand or by chain-pulley and in drawing ends through machine. Places lease strings across warp ends coming from warp beams to divide them into different layers. Detects broken ends at rear of machine and joins them together. Maintains required quantity and temperature of sizing solution in sow-box or sizing-back. Takes off flannel from sizing roller and washes it when necessary. Removes empty beams and assists Front Sizer in cleaning and oiling machine.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

8152.9900

Weaving and Knitting Machine Operators, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Weaving and Knitting Machine Setters and Pattern Card Prepares, Other include all other workers engaged in setting weaving and knitting machines and in preparing pattern cards for weaving designs, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8152

Title Weaving and Knitting Machine Operators

Family 8153

Sewing Machine Operators

Sewing Machine Operators operate and monitor sewing machines to make, repair, darn and renovate textile, fur, synthetic or leather garments or embroider ornamental designs on garments or other materials. They operate button hole making and eyelet holing machines to cut holes, stitch around holes, stitch buttons and fix eyelets to garments.

8153.0101

Sewing Machine Operator, General

Sewing Machine Operator, General; Stitcher Machine (Textile and Fur products) operates sewing machine to join pieces of cloth, hosiery fabric, canvas, fur and leather for making garments, bags, upholstery and other textile and fur products. Places spools of required type and colour of thread and winds bobbins on machine. Draws thread under tension spring and through guides into eye of needle. Adjusts tension on thread and sets number of stitches per inch if necessary. Raises pressure foot of machine to admit material to be sewed and lowers pressure foot on material. Starts machine and guides material to be sewed under needle of machine. Observes stitches while

sewing. Stops machine, breaks and cuts threads and removes sewed material. Replaces empty spool and bobbin with full ones as and when necessary. Cleans and oils machine. May remove minor faults and assist in repairs and overhauling of sewing machine. May set and attach special gadgets to machine for having special type of stitches. May be designated according to type of machine operated such as BLIND STITCH MACHINE OPERATOR; ZIG-ZAG MACHINE OPERATOR; BAR TACKING MACHINE OPERATOR; TURNING AND PRESSING MACHINE OPERATOR; SHOULDER STRAP TURNING MACHINE OPERATOR; POSTBED MACHINE OPERATOR; DOUBLE NEEDLE SEWING MACHINE OPERATOR; etc.

Qualification Pack Details:

QP NOS Reference AMH/Q0301

QP NOS Name Sewing Machine Operator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8153

Title Sewing Machine Operators

8153.0102

Stitcher (Leather Goods and Garments)

Stitcher (Leather Goods and Garments), also called a 'sewer' is an important job-role associated with Leather Goods and Garment sector. The primary responsibility of a stitcher is to sew fabric, fur, leather or synthetic materials to produce garments and other articles.

Qualification Pack Details:

QP NOS Reference LSS/Q6101

QP NOS Name Stitcher (Leather Goods and Garments)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 4

ISCO 08 Unit Group Details:

Code

Title

8153.0103

Specialized Sewing Machine Operator

Specialized Sewing Machine Operator is responsible for operating the specialized sewing machine to sew different kinds of stitches on fabric/garments in the apparel industry.

Qualification Pack Details:

QP NOS Reference AMH/Q 2301

QP NOS Name Specialized Sewing
Machine Operator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8153

Title Sewing Machine Operators

8153.0200

Button Hole Maker, Machine

Button-Hole Maker, Machine; Button-Hole Machine Operator operates button-hole making machine which cuts holes and stitches around holes automatically. Mounts spool of thread and wound bobbin on machine. Draws thread through guides and eye of needle. Adjusts gauge according to size of hole required. Presses pedal to raise pressure-foot, inserts part of garment where button-holes are to be made and adjusts it. Releases pedal to lower pressure foot. Presses another pedal to start machine which cuts hole and stitches around hole. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 8153

Title Sewing Machine Operators

8153.0300

Eyelet Holing Machine Operator

Eyelet Holing Machine Operator operates eyelet machine to punch and stitch holes for fixing eyelets in garments. Selects thread of required colour and shade matching cloth and puts thread reel on machine or creel. Sets wound bobbin into shuttle of machine. Pulls thread through guide into eye of needle and sets thread tension by screwing regulator. Fixes punch of required size in machine and adjusts it. Operates foot pedal to raise pressure foot of machine and admits marked portion of garment where eyelet hole is to be made below it. Positions marked portion to garment below pressure foot and releases pressure foot to hold it. Starts machine which automatically drops punch to cut hole and stitches it on both sides of material. Replaces broken needle and empty shuttle as and when necessary. May operate different types of machine according to fabric and regulate super-tension of thread movement. May adjust number of stitches per inch.

ISCO 08 Unit Group Details:

Code 8153

Title Sewing Machine Operators

8153.0400

Button Stitching Machine Operator

Button Stitching Machine Operator; Button Stitcher, Machine operates button stitching machine which stitches buttons to garments. Mounts spool of required type of thread and wound bobbin on machine and draws thread through guides

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and eye of needle Presses pedal to raise pressured foot of machine and inserts part of garment where buttons are to be stitched under it. Places button in clamp over pressure-foot and releases pedal to lower pressure foot. Starts machine which automatically stitches button. May clean and oil machine and attend to minor repairs.

ISCO 08 Unit Group Details:

Code 8153
Title Sewing Machine Operators

8153.0500

Embroider, Machine

Embroider, Machine embroiders various designs on fabric or garments by machines. Selects size and colour of thread and amounts bobbins of thread or machine. Threads needle and passes yarn through carrier of machine. Adjusts machine for thread tension and type of stitch. Presses lever to raise needle and inserts material under it. Guides material or sewing arm of machine in accordance with drawing or outline or guide points of pantograph on enlarged design. Changes thread as required and replaces empty bobbins and broken needles. Removes article when embroidering is complete. Cleans and oils machine. May mark outlines of design on material before embroidery is started. May operate machine which embroiders several articles or designs at one time. May be designated as CROCHETING MACHINE OPERATOR if embroiders designs using crocheting machine.

ISCO 08 Unit Group Details:

Code 8153
Title Sewing Machine Operators

8153.0600

Embroidery-Machine Operator (Semi-Automatic)

Embroidery Machine Operator (Semi-Automatic) tends semiautomatic sewing machine with multiple-sewing heads controlled by pattern chain that embroiders designs on garments or garment parts: Positions garment or part over embroidery hoops arranged in hoop frame, following edges or markings on fabric. Places hoop frame on machine bed and turns thumbscrews to secure frame to machine. Presses button to start machine that sews design onto garment or part and stops, or sews one colour of multiple-colour design and stops. When sewing multiple-colour designs, rethreads machine with subsequent colours of thread and starts machine to complete design. Removes hoop frame from machine on completion of design and removes garment or part from hoops.

ISCO 08 Unit Group Details:

Code 8153
Title Sewing Machine Operators

8153.0601

Embroidery Machine Operator (Zig Zag Machine)

Embroidery Machine Operator is responsible for operating the embroidery machine to embroider decorative designs on fabric/garments in the apparel industry. The Embroidery Machine Operator is able to perform different kinds of stitches and decorative work such as running shade work, cording and satin stitch, eyelet work, appliquéd work, shade work and round, cutwork and open work, pin stitch and pitch stitch, china embroidery and fancy embroidery.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	AMH/Q0801
QP NOS Name	Embroidery
	Machine Operator (Zigzag Machine)
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8153
Title	Sewing Machine Operators

8153.0701

Framer-Computerised Embroidery Machine

Framer of a Computerized Embroidery Machine is responsible for preparation and setup of the embroidery machine for embroidery and carries out hooping and framing operations. The Framer is also responsible for removal of frame and fabric panel once the embroidery has been completed. While the embroidery is done through the computerized embroidery machine, the Framer needs to monitor the progress, and ensure the required quality of embroidery is achieved.

Qualification Pack Details:

QP NOS Reference	AMH/Q1301
QP NOS Name	Framer- Computerised Embroidery Machine
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8153
Title	Sewing Machine Operators

8153.0702

Helper-Parts Making (Leather Goods and Garments)

Helper-Parts Making (Leather Goods and Garments) provides assistance to the Goods and Garments Machine Operators involved in material cutting, stitching, skiving, pasting etc. A Helper is required to co-ordinate with team members and is required to assist the operators to carry out activities based on the production schedule.

Qualification Pack Details:

QP NOS Reference	LSS/Q6102
QP NOS Name	Helper-Parts Making (Leather Goods & Garments)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	8153
Title	Sewing Machine Operators

8153.0703

Helper-Finishing Operations (Leather Goods and Garments)

Helper – Finishing Operation (Leather Goods and Garments) provides assistance to the Goods and Garments Machine Operators involved in colouring, lamping, cleaning and packaging etc. A Helper is required to co-ordinate with team members and is required to assist the operators to carry out activities based on the production schedule.

Qualification Pack Details:

QP NOS Reference	LSS/Q6201
QP NOS Name	Helper – Finishing Operation (Leather Goods & Garments)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	8153
Title	Sewing Machine Operators

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

8153.9900

Sewers and Embroiders, Other

Sewers and Embroiders, Other include all other sewers and embroiders engaged in hand and machine sewing and embroidering textile and kindred materials such as those sewing and embroidering household linen, hats, caps, upholstery, mattresses, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8153

Title Sewing Machine Operators

Family 8154

Bleaching, Dyeing and Cleaning Machine Operators

Bleaching, Dyeing and Fabric Cleaning Machine Operators operate and monitor machines that bleach, shrink, dye, and otherwise treat fibres, yarn or cloth.

8154.0200

Kierman (Textile)/Package Dyeing Machine Operator

Kierman (Textile) tends kier (vat for boiling yarn or cloth) for bleaching and dyeing. Puts chemicals in tanks and lets in water and opens steam to boil chemical solution. Puts cloth or yarn into kier with help of Piler ensuring that cloth or yarn is properly piled. Closes and secures mouth of kier and pumps chemical solution from tank into kier. Checks level and circulation of solution, controls temperatures and pressure in kier and ensures that yarn or cloth is properly boiled.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.0300

Scouring Man, Woollen Yarn

Scouring Man, Woollen yarn; Scourer, Woollen Yarn tends scouring machine for washing and cleaning woollen or worsted yarn preparatory to further processing. Prepares required amount of detergent by mixing soap and soda in water and pours it into bowls of scouring machine. Sets machine in operation and feeds woollen yarn into carrier of machine. Applies wooden presses to press yarn under rollers and allows it to pass through various processes of cleaning and washing in detergent to prepare it for further processing. Checks pressure gauges to ensure proper functioning of machine. Stops machine on completion of washing and cleans and oils machine. May feed raw wool into scouring machine to clean dirt. May operate drier for drying cleaned wool.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.0500

Washing Machine Man

Washing Machine Man; Bleaching Machine Man; Craft-Machine Man; Chemicking Machine Man; Desizing Machine Man; Scouring Machine Man tends machine for washing and bleaching cloth. Checks level and flow of water or chemical solution in pit, passes end of cloth through loops and rollers and starts machine. Stops machine if cloth gets entangled in loops or rollers; makes necessary adjustments and runs machine.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Supervises work of Pilers and cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.0600

De-Gummer, Silk

De-Gummer, Silk treats silk yarn, cloth or piece goods to remove natural gum. Fills container with water. Raises water to required temperature, adds soap or other cleansing agent to it and controls temperature of solution. Places skeins of yarns in boiling solution or on revolving arms of container. Attaches cloth or piece goods to suspended rods, canes or metal frames and moves these through solution. Rinses material in hot water. Drains and cleans container. May do drying.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.0700

Carboniser, Textile

Carboniser, Textile treats wool, woollen rags or clothes to remove vegetable matter. Feeds material into bath containing weak solution of sulphuric or other acid to carbonise matter. Allows material to soak, passes it through rollers to remove solution and then transfers it to bath containing alkaline solution to neutralise acidity. Dries it and feeds it through rollers to pulverise matter. Shakes out matter by hand or machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.0800

Scutcher Man, Bleaching

Scutcher Man, Bleaching; Cloth Opener (Cotton Textile) tends scutcher machine for opening folds and removing creases and twists formed in cloth due to washing and bleaching and to spread it into sheet. Starts machine and feeds one end of piled and twisted cloth into scutcher. Unfurls twisted cloth mechanically or manually and allows cloth to pass centrally through rollers to turn it into cloth sheet. Collects spread out cloth sheet at other end of machine. Cleans and oils machine. May operate washing and bleaching machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.0900

Dyed-Yarn Operator (Textile)

Dyed Yarn Operator (Textile) tends machine that coats fibreglass sliver with dye: Places supply package on machine platform and threads sliver through guides, over tension bars and dye roller applicator, through traverse guide, and attaches sliver to take-up package. Pours or turns valve to admit dye solution into trough of dye roller applicator. Pushes lever to lower winding head and start machine. Observes flow of sliver through machine to detect breaks in sliver and ties broken sliver by hand. Cuts sliver, using scissors, and doffs packages of dyed sliver from machine.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.1000

Jigger Man (Cotton Textile)/Jigger Machine Operator

Jigger Man (Cotton Textile) dyes cloth by operating jigger machine. Fits undyed cloth rolls on machine and passes one end of rolled cloth carefully through vat on to other roller for making rolls of dyed cloth. Prepares dyeing solution of required shade, pours it into jigger vat and ensures that cloth passing through vat is completely dipped in dyeing solution. Starts machine. Allows undyed cloth to unroll from roller, pass through colouring solution in jigger vat to get dyed and then get rolled on other roller. Takes proper care to maintain temperature and level of dye liquor and ensures proper dyeing of cloth without spots and creases. Gets sample of dyed cloth approved. Cleans and oils jigger machine. May operate automatic or ordinary jigger machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.1100

Dye Automation Operator (Textile)/Dyeing Machine Operator

Dye Automation Operator (Textile) controls and monitors programmed electronic equipment to bleach, dye, and finish cotton and synthetic sewing threads: Confers with Operator of dye machines to obtain information needed to process customer orders, and records data, such as number of dyeing machines to be used, production order numbers,

and colour numbers specified for dye orders. Selects programmed procedures based on knowledge of dyeing processes and familiarity with affinity of dyes to specific thread types. Depresses keys of data-entry unit to enter required data into computer. Observes display screen to verify data entered, to ascertain computer response to instruction entered, and to determine compliance with procedural steps. Depresses keys to edit instructions when necessary and to input answers for primary or alternate steps in procedure. Hangs tags on dye board, during shift, to indicate steps in dyeing process for each machine. Confers with workers to determine reasons for delays in dyeing process, and examines dyeing machines and equipment to ascertain reason for malfunctions. Notifies supervisor of malfunctions, and records reasons for delays in log. Receives instructions from supervisor, such as alteration of dyeing temperature, omission of specific steps in dyeing process, or repetition of specific steps. Keys in dyeing instruction changes. Confers with Operator on previous shift to ascertain drying steps to complete dyeing in progress.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.1200

Wool Dyer

Wool Dyer; Woollen Yarn Dyer tends dyeing machine to dye wool or yarn. Puts by hand wool or yarn hanks into cage or bowl of machine. Pours in water to soak material. Mixes dye as per instructions in bucket or in overhead tank. Pours dye solution into bowl of machine or opens valve to let in dye solution through pipe.

Starts pump to put heated dye solution into circulation through wool or yarn. Stops machine when wool or yarn has been dyed. Drains off dye solution by opening outlet. Pours water from tap to cool wool or yarn and to wash off excess dye. Takes out dyed wool or yarn from machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.1500**Dyer Garment**

Dyer, Garment dyes garments to desired colours after washing, dry-cleaning or bleaching if necessary. Cleans garments by washing, dry-cleaning or bleaching to remove dirt, spots or foreign matter, if any. Prepares dye solution in container by mixing required colour in hot water; controls temperature of solution; tests strength of solution and colour by treating small piece of cloth. Immerses garment in solution and agitates it by hand or mechanically and inspects garment after prescribed period for desired colour. Stops, continues or adjusts treatment according to result of inspection. Removes garment from container when properly dyed and passes it on for rinsing and drying. Drains or cleans container. May do rinsing or drying. May dye leather garments using spray and be known as DYE-SPRAYER.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.1700**Damping Machine Attendant**

Damping Machine Attendant; Damping Machine Man; Cloth Conditioning Man tends damping machine for spraying cloth with solution to prepare it for calendering. Fills tank of machine with solution, passes end of cloth through machine and runs machine for spraying solution on cloth. Ensures that cloth passes through machine without folds and is uniformly damped. Cleans machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.1800**Calenderman (Cotton Textile)**

Calenderman (Cotton Textile) tends calendering machine for glazing and finishing cloth. Piles and fits roll of cloth at back of machine and feeds its loose end into calender rollers. Adjusts pressure on cloth by winding screws on rollers and starts machine. Observes gauges to control injection of steam into rollers for heating them to required temperature and ensures that cloth passing through rollers is without crease and is being uniformly pressed and glazed to desired finish. Stops machine, as required and removes nails, leather hits etc. noticed on cloth. Folds finished cloth at front end of machine. May work at feeding end as BACK CALENDERMAN or at receiving end as FRONT CALENDERMAN.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning Machine Operators

8154.1900

Miller

Miller; Milling Machine Man (Woollen Textile) tends milling machine to soften, shrink and strengthen woollen cloth. Passes one end of cloth through draft board to wooden rolls of milling machine. Stitches, by hand or machine, both ends of cloth to make it one endless piece. Starts machine and ensures that cloth runs through it smoothly. Pours soap solution over running cloth as required and checks texture of cloth milled. Stops machine after specified time, cuts, stitches and takes out cloth from machine. May check width of cloth at regular intervals during milling.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.2000

Raising Machine Man (Textile)

Raising Machine Man (Textile) tends raising machine which raises fibres on surface of cloth by means of wire-covered rollers and brushes for use as lint, blanket, flannel etc. Stitches ends of cloth pieces to obtain continuous piece. Passes one end of cloth through guides and rollers of machine and starts machine. Ensures that cloth passes through rollers without folds or crease and fibres are properly raised on its surface for use as flannel, lint, etc. Observes gauges and adjusts speed and pressure of rollers as required to avoid damage to cloth while processing. Gets sample of raised cloth approved and removes it from machine. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.2100

**Stentering Machine
Man/Stentering Operator**

Stentering Machine Man; Tenter Machine Man; Tentering Machine Man (Textile) tends stentering machine or frame which dries and restores original width of cloth after dyeing, washing or finishing. Adjusts stenter frames according to width of cloth. Starts machine. Ensures that cloth passes through machine without damage from stenter clips and is properly stretched. May be known as ASSISTANT STENTERING MACHINE MAN or BACK STENTERING MACHINE MAN if working at delivery end of machine. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.2200

Cropper

Cropper; Cropping Machine Man; Shearing Machine Man (Textile) tends machine for cropping excess fibre from cloth for giving it smooth and even finish. Adjusts cropping gauge according to requirements. Passes end of cloth through machine. Starts machine. Ensures that cloth is properly stretched and passes through machine without creases.

ISCO 08 Unit Group Details:

Code 8154

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.2300

Padding Machine Man/Padding Mangle Operator

Padding Machine Man (Textile) tends padding machine for treating cloth with light preliminary coat of dye or chemicals preparatory to further processing. Mounts cloth roll on machine and passes loose end of cloth through guide-rollers and trough to roller at opposite side. Pours dye or chemical solution into trough of machine and ensures that cloth is completely dipped in it. Opens steam valve to heat dye or chemical solution to required temperature. Starts machine. Adjusts pressure on rollers and ensures smooth flow of cloth through solution on to roller at opposite side. Cleans and oils machine. May rinse dyed material and pass it on to Drier for further processing.

ISCO 08 Unit Group Details:

Code 8154
Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.2400

Brushing Machine Man (Textile)

Brushing Machine Man (Textile) tends brushing machine for cleaning and removing threads and foreign material from surface of untreated cloth preparatory to further processing. Sets and adjusts roll of cloth, passes its end through rollers of machine. Starts machine and ensures that cloth is properly brushed and passes through machine without damage. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8154
Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.2500

Crabbing Machine Man (Woollen Textile)

Crabbing Machine Man (Woollen Textile) tends crabbing machine for setting weave and giving stability to woollen cloth. Sets cloth roll at feed end of machine. Passes end of cloth length through guides and roller of machine and fixes it with collecting cylinder for processing in hot water tank and winding it into roll. Fills tank with water and opens steam valve to boil it. Sets pressure of rollers and starts machine to rotate cloth through water and rollers. Observes pressure gauges periodically and maintains required pressure and temperature of water. Drains off hot water by opening outlet tap and lets its cold water to cool processed cloth. Collects processed cloth for subsequent operations. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8154
Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.2600

Sanforizing Machine Man

Sanforizing Machine Man tends sanforizing machine to shrink cloth to maximum extent. Opens steam valve to heat drying drums to required temperature, regulates speed of machine according to shrinkability of cloth and passes end of cloth length through guide rollers and damping, drying and stentering

section of machine. Starts machine and watches cloth as it is drawn through it ensuring that cloth is properly damped, dried and stretched. Measures shrunk cloth and reports shrinkage. Observes gauges and adjusts machine where necessary or as instructed. Cleans and oils machine. May set feed rollers of required diameter to get optimum shrinkage.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.2700

Singeing Machine Man/Singeing Machine Operator

Singeing Machine Man; Singeing Man (Textile) tends singeing machine to burn fluff and rough protruding fibres on cloth to get better finish. Adjusts cloth roll at feed-end of machine. Runs loose end of cloth through guides and feeds it through rollers. Lights burners in machine and regulates flow of gas to obtain desired flame. Starts machine and observes cloth as it runs over burner flames. Avoids scorching of cloth, ensuring burning of fluff and unwanted threads and better finish to it. Adjust machine where necessary for creaseless flow and proper singeing of cloth. Cleans and oils machine.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

8154.9900

Bleaching, Dyeing and Cleaning Machine Operators, Other

Bleaching, Dyeing, Printing and Finishing Operatives perform variety of routine and low skilled tasks in washing, bleaching, dyeing, printing and finishing of textiles and may be designated according to nature of work performed, such as: Piler; End puller piles cloth in kier or pulls end of cloth at washing or bleaching machine. Hydro-Extractor Attendant tends hydro-extractor to extract water from cloth or yarn. Drying Machine Man, Woollen Yarn feeds wet woollen or worsted yarn hanks to yarn drying machine and removes dried yarn hanks coming out of machine. Back Tender, Cloth Printing assists Printer in preparing machine for new pattern performing all heavy work, such as lifting rolls of cloth and printing rollers into place, making adjustments on printing rollers tightening nuts and screws, tending machine in operation, regulating cloth tension screws, etc. Grey Cloth Tender Printing tends back-grey cloth, which is run under the white cloth being printed in printing machine to act as foundation to absorb any colour applied beyond edge of white cloth.

ISCO 08 Unit Group Details:

Code 8154

Title Bleaching, Dyeing and Cleaning
Machine Operators

Family 8155

Fur and Leather Preparing Machine Operators

Fur and Leather Preparing Machine Operators operate and monitor various machines that prepare leather or treat fur-or wool-bearing pelts. They trim, scrape, clean, tan, buff and dye animal hides, pelts or skins to produce leather stock and finished furs.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

8155.0100

De-Hairer, Machine/De-Hairer Machine Operator

De-Hairer, Machine Operator removes hair from hide or skin by stretching it through machine rollers fitted with blunt spiral blades. Collects and keeps limed skins near machine for de-hairing. Places skin or hide over lower roller of machine stretching it by hand to remove wrinkles; starts machine to rotate upper roller of machine fitted with blunt spiral blades; operates foot pedal of machine to raise lower roller of machine with skin on for de-hairing; adjusts blunt spiral blades of upper rotating roller to shave or de-hair skin or hide; lowers roller and changes position of skin for de-hairing remaining portion of skin and repeats process till entire skin is de-haired completely, ensuring that skin is not damaged while de-hairing. May clean and repair machine. May operate fleshing machine.

ISCO 08 Unit Group Details:

Code 8155

Title Fur and Leather Preparing
Machine Operators

8155.0201

Flesher, Machine/Fleshing Operator

Flesher, Machine; Fleshing Operator removes flesh from skin or hide by passing it through machine rollers fitted with sharp blades, keeps de-haired skin over lower roller of machine, inner side turned upwards; smoothens out wrinkles by hand; starts machine to rotate machine rollers; presses foot treadle of machine to bring lower roller carrying hide, against roller fitted with revolving knife blades; adjusts roller to scrape flesh particles

from skin; feeds half of hide through rollers; depresses pedal to rollers and removes hide; reverses hide and repeats operation to scrape other half of hide; ensures that skin or hide is not damaged or cut by blades when scraping; piles scrapped hides. May clean and oil machine. May set machine with appropriate cutters after grinding.

Qualification Pack Details:

QP NOS Reference LSS/Q0601

QP NOS Name Flesher Operator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8155

Title Fur and Leather Preparing
Machine Operators

8155.0300

Scudder, Machine/Scudding Machine Operator

Scudder, Machine removes epidermis hair roots, pigment cells and lime salts from grain side of hide or skin by passing it through machine rollers fitted with blunt blades. Collects de-haired and fleshed skins or hides and keeps them near machine; spreads skin or hide with hair side facing upwards on roller of machine and stretches it by hand to smooth out wrinkles; starts machine to rotate rollers fitted with blunt knife blades; presses paddle to bring roller with hide against sorting roller equipped with knife blade (scudding knife) to remove hair roots, pigment cells etc.; reverses hide and repeats operation to scrape other half of hide; ensures that skin or hide is not damaged in process by knife cuts; removes de-haired skin from machine and places it near machine. May clean and oil machine. May set machine with fresh knife blades.

ISCO 08 Unit Group Details:

Code 8155
Title Fur and Leather Preparing Machine Operators

necessary; ensures that knife blade is sharpened automatically by emery wheels fixed to machine; adjusts emery stone wheels if not in position for correct sharpening of knife blade. May clean and oil machine.

8155.0400

**Hide and Skin Setter,
Machine/Setting Machine Operator**

Hide and Skin Setter, Machine; Leather Setter, Machine operates machine fitted with blunt knife to set grains on hide or skin and to smoothen leather. Spreads leather stretched over machine table; starts machine and observes blunt edged knife fitted in machine; rubs surface of hide or skin with pressure to set grains and remove wrinkles; changes position of leather to get entire surface of leather set by machine and to make it smooth. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 8155
Title Fur and Leather Preparing Machine Operators

ISCO 08 Unit Group Details:

Code 8155
Title Fur and Leather Preparing Machine Operators

8155.0501

**Splitting and Sammying Operator
(Leather)**

Splitting and Sammying Operator operates the splitting machine to split the hide horizontally into a grain layer/flesh layer. It can be done in the limed condition or in the tanned condition. A Sammying Operator operates the sammying machine which absorbs the grease and excess moisture from the hide during the wet process in tanneries.

Qualification Pack Details:

QP NOS Reference	LSS/Q0801
QP NOS Name	Splitting and Sammying Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code
Title

8155.0601

**Hide Shaver, Machine/Shaving
Operator**

Hide Shaver, Machine; Shaving Operator operates machine fitted with spirally fixed knives to reduce thickness of hide or skin to uniform size. Places hide on machine table with flesh side upward; starts

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machine and presses foot pedal of machine to raise table with leather on to bring it closer to revolving wheel fitted with spirally fixed knives; holds skin or hide tightly as it is shaved by knives of rotating wheel; changes position of leather to shave rest of surface; checks visually that shaving of leather is even and to required thickness; ensures that emery wheels fitted to machine sharpen knife blades automatically in process of shaving; cleans and oils machine. May repair machine.

Qualification Pack Details:

QP NOS Reference	LSS/Q0301
QP NOS Name	Shaving Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

8155.0700

Staker, Machine/Staking Machine Operator

Staker, Machine operates machine fitted with movable arm with roller, which moves backward and forward over edge of blunt iron plate, to make conditioned hides soft and flexible. Conditions hides on previous day by keeping in moist saw dust; adjusts position or gap of iron plate fitted to machine depending on type of hide used; starts machine and stretches hide on edge of machine and feeds end of hide into moving arm of machine between roller and metal plate; holds one end of hide tightly by leaning heavily on hide (using body weight for holding hide) as hide is being flexed by moving rollers over blunt metal plate; changes position of hide or inserts fresh area of hide into rollers as moving arm comes forward to

soften hide; keeps softened or flexed hide at central point. May oil and clean machine.

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

8155.0801

Leather Buffer, Machine/Buffing Operator

Leather Buffer, Machine; Buffing Machine Operator, Leather; Burnisher, Finishing Wheel Operator tends machine that buffs hides to specified finish. Turns set screws to regulate distance between rollers, according to thickness of hide; inserts hide between rollers and starts machine; holds half of hide while rollers buff surface of other half; repeats buffering operation on unbuffered portion of hide. May be designated according to hide buffered as BLACK-LEATHER BUFFER; WHITE KID BUFFER. May tend machine equipped with abrasive covered rollers that form nap on surface of leather and be designated SUEDING-WHEEL OPERATOR.

Qualification Pack Details:

QP NOS Reference	LSS/Q0201
QP NOS Name	Buffing Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

8155.0900

Leather Glazer, Machine/Glazing Machine Operator

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Leather Glazer, Machine; Glazing Machine Operator glazes or gives glossy finish to leather by operating glazing machine fitted with movable hard glass roller. Positions leather on bed of machine and depresses pedal to lower hard glass roller into leather; starts machine to move roller over leather; shifts position of leather under roller to impart specified finish to entire surface; pulls finished leather from machine table and stacks it separately. May treat surface of leather with oil before glazing depending on type of leather.

ISCO 08 Unit Group Details:

Code 8155
Title Fur and Leather Preparing Machine Operators

8155.1000

Rolling Machine Operator (Leather)

Rolling Machine Operator, Leather tends roller machine that smooths surface of leather by passing through moving rollers. Positions leather on bed of machine and depresses pedal to lower roller onto leather; starts machine to move roller over leather; adds or removes counter weights to rollers depending on type of leather and nature of rolling required; shifts position of leather under roller to impart specified finish to entire surface. May be designated according to section of hide rolled as BACK ROLLER; BELLY ROLLER or according to condition of leather rolled as DRY ROLLER; RETANNED-LEATHER ROLLER; WET ROLLER.

ISCO 08 Unit Group Details:

Code 8155
Title Fur and Leather Preparing Machine Operators

8155.1101

Tanner, Rotary Drum, Continuous Process (Leather Mfg.)/Drum Operator

Tanner, Rotary Drum, Continuous Process (Leather Mfg.); Drum Operator operates rotary drum to remove hair and other soluble from hides or skins and convert hides or skins into leather or glue during continuous process: Loads drum with hides, skins, or other animal stock. Turns valves to admit water and steam to drum. Weighs and mixes specified amounts of lime, salt, and other chemicals in mixing tank or drum, following formula, to prepare liming, deliming, pickling, and tanning solutions used in treating hides or skins. Turns valve to transfer solutions to drum during specified processing cycles. Moves lever to activate drum that cleans, washes, pickles, and tans hides or skins. Replaces solid door of drum with perforated door at specified intervals to filter waste from drum at completion of cycles. Verifies salinity and temperature of solutions, using salinometer and thermometer. Transfers tanning solution to drum and tans hides or skins.

Qualification Pack Details:

QP NOS Reference LSS/Q0701
QP NOS Name Drum Operator
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8155
Title Fur and Leather Preparing Machine Operators

8155.1102

Post Tanning Machine Operator

Post Tanning Machine Operator performs the process of converting the crust leather into finished leather. These operations

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

include softening of the crust, flattening it and finishing the surface of the prefinished leather by pressing/embossing on it.

Qualification Pack Details:

QP NOS Reference	LSS/Q0901
QP NOS Name	Post Tanning Machine Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

8155.1200

Leather Measuring Machine Man/Measuring Machine Operator

Leather Measuring Machine Man operates machine to measure size of pieces of leather. Sets machine indicators reading at zero and inserts piece to be measured into feed rolls of machine. Records area registered by indicator. May maintain account of leather pieces measured.

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

8155.1201

Helper-Wet Operations (Multiskilled)

Helper-Wet Operations (Multiskilled) provides support in various processes of wet process operations in a tannery such as preservation, soaking, liming, re-liming, fleshing, de-liming, tanning etc. An operator performs these functions along with an assistant and takes his support in passing the completed work onto the next

stage in production. This position gives the helpers an opportunity to learn more about the operation and work with/learn from operators.

Qualification Pack Details:

QP NOS Reference	LSS/Q0401
QP NOS Name	Helper-Wet Operations (Multiskilled)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

8155.1202

Helper-Dry Operations (Finished Leather)

Helper-Dry Operations (Finished Leather) provides assistance in various processes of preparing finished leather such as in buffing, shaving, staking, toggling etc. An operator performs these functions and a Helper assists the operator and passes the completed work onto the next stage in production. They must have in-depth knowledge and understanding of the process of production, health and safety standards and quality parameters.

Qualification Pack Details:

QP NOS Reference	LSS/Q0101
QP NOS Name	Helper-Dry Operations (Finished Leather)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

8155.1203

Helper-Finishing Operation (Finished Leather)

Helper-Finishing Operation (Finished Leather) provides support in various finishing processes in a tannery such as in such as brushing, spraying, coating etc. They assist the operator and pass the completed work onto the next stage in production. This position gives the helpers an opportunity to learn more about the operations and work with/learn from operators.

Qualification Pack Details:

QP NOS Reference	LSS/Q0501
QP NOS Name	Helper-Finishing Operation (Finished Leather)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

8155.9900

Fur and Leather Preparing Machine Operators, Other

Fur and Leather Preparing Machine Operators, Other include workers who operate and monitor various machines which prepare leather or treat fur or wool bearing pelts not elsewhere classified.

ISCO 08 Unit Group Details:

Code	8155
Title	Fur and Leather Preparing Machine Operators

Family 8156

Shoe Making and Related Machine Operators

Shoemaking and Related Machine Operators operate and monitor machines which produce and repair standard or special footwear, handbags and other accessories, mainly made of leather.

8156.0100

Pounding Machine Operator (Foot-Wear)

Pounding Machine Operator (Footwear) operates machine to pound (grind off) roughness from lasted shoe-uppers. Starts machine. Holds and rotates shoe against emery wheel to flatten lower edge of lasted shoe-upper, smooth rough edges and even heads of nails. Removes, cuts, off or drives in any protruding nails. Cleans and oils machine and requests any needed repairs.

ISCO 08 Unit Group Details:

Code	156
Title	Shoe Making and Related Machine Operators

8156.0200

Heel Breaster, Machine (Foot-Wear)/Machine Operator-Heel Breasting

Heel Breaster, Machine (Footwear) operates heel breaster machine to cut breast (forward part) of shoe-heel according to style-specifications. Selects knife and cutting block and sets knife of required shape and size in machine. Adjusts cutting block and press plate on machine. Collects heels and places one of them on block. Presses foot pedal to bring down knife over block. Presses foot pedal to bring down knife over heel for cutting its forward part. Ensures accurate cutting and repeats process for cutting breasts of

other heels. Stores them separately after cutting. Cleans and oils machine and gets mechanical defects removed when necessary.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.0400**Heel Builder, Machine (Foot-Wear)/Machine Operator-Heel Building**

Heel Builder, Machine (Footwear) operates heel building machine to build up shoe heel by gluing and nailing heel lifts (small leather pieces) together. Glues heel lifts previously assembled by Heel Assembler or collects and glues them by hand. Places glued lifts one over another to build up heel to required size and height and retains them intact. Selects mould according to size of heel to be built. Sets and adjusts it in machine. Puts nails in die holes and places glued lifts in mould. Presses foot pedal to start machine which drives nails from die holes through lifts to hold them in position and make complete heel. Takes out built heel from mould and ensures proper nailing by touch and sight. Cleans and oils machine and gets defects removed to keep it in working condition.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.0500**Sole Rounding Machine Operator**

Sole Rounding Machine Operator operates sole rounding machine to trim

insoles and outsoles of shoe to required shape and size. Collects master shape wooden pattern of required size. Sets and screws it in machine. Sets cutting knife and pressing plate in machine. Places sole on maker shape wooden pattern, operates hand wheel to lower pressing plate on top of sole to hold it firmly. Turns guiding cam lever for positioning knife to cutting point. Depresses foot pedal to start machine and regulates movement of cutting knife to go round sole along edge of pattern and cut it to required shape. Releases foot pedal to stop machine and turns lever to take off knife from sole. Reverses hand wheel to raise up pressing plate and removes rounded sole from machine. Checks rounding visually and ensures desired accuracy. Cleans and oils machine and gets defects removed if any. May be designated according to type of sole rounded such as INSOLE ROUNDING MACHINE OPERATOR, OUTSOLE ROUNDING MACHINE OPERATOR, etc. May operate improvised rounding machine where opening of space for insertion of sole and extent of rounding is regulated by foot pedal and actual insertion and rounding is guided by hand. May set channelling knife in rounding machine for channelling of sole.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.0600**Nailer, Machine/Machine Operator, Nailing**

Nailer, Machine; Nailing Machine Operator; Tacking Machine Operator (Footwear) operates footwear nailing machine to nail or tack shoe parts together. Collects nails of required type

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and size and checks them for sharpness of points. Fills them by hand in hopper of nailing machine. Collects shoe parts to be nailed. Starts machine. Places or holds shoe parts to be nailed under nailing head of machine. Presses pedal to automatically release and drive nails through shoe parts to be joined. Releases pedal and takes out nailed pieces. Checks and ensures correct nailing by sight and touch. Cleans and oils machine and gets defects removed when required to ensure proper functioning. Is designated according to part of shoe nailed or tacked such as HEEL SEAT NAILER; TOP-LIFT NAILER; IN SOLE ATTACHER; INSIDE HEEL ATTACHER, etc.

ISCO 08 Unit Group Details:

Code 8156
Title Shoe Making and Related Machine Operators

8156.0701 Cutter, Machine/Cutter (Footwear)

Cutter, Machine, Clicker Machine; Press Cutter (footwear) operates hand or foot-press to cut footwear components from sheets of leather. Selects and spreads on table of machine leather of thickness and quality appropriate to component to be cut (heel, tongue, sole, toe-cap, etc.) Notes direction of stretch and any defective areas in leather. Plans cutting to obtain maximum number of useable pieces. Places die on leather according to plan and operates hand or foot lever to force die through leather and cut out piece. Continues cutting until leather is used up. Bundles cut pieces for removal. Oils and cleans machine and reports defective operation for correction. May be designated as UPPER CUTTER, BOTTOM CUTTER, LINE CUTTER, etc. according to component cut.

Qualification Pack Details:

QP NOS Reference	LSS/Q3201
QP NOS Name	Cutter (Footwear)
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8156
Title Shoe Making and Related Machine Operators

8156.0800

Leather Cutter, Machine

Leather Cutter, Machine (Harness and Saddle Making) cuts leather by machine for use in making harness and saddles. Fits appropriate guide in machine and inserts leather under knives to cut components to desired shape. Checks sample piece for accuracy and continues production. May sharpen and change knife occasionally. May cut leather pieces using hand knife (rapi).

ISCO 08 Unit Group Details:

Code 8156
Title Shoe Making and Related Machine Operators

8156.0900

Welt Sewer, Machine/Machine Operator, Welt Sewing

Welt Sewer, Machine; Welt Sewing Machine Operator operates sewing machine to sew narrow strip of leather (welt) to lip of insole of shoe through upper and lining. Checks needle and awl of machine and replaces them if they are out of trim. Fixes spool of sewing cord in box container and draws it through heated wax, guide and needle. Puts welt in welt guide and depresses foot pedal to start machine. Manipulates carriage of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

shoe with both hands keeping sole upward under needle, awl and welt guide to stitch through upper, lining and insole lip. Feeds thread and welt when necessary. Ensures decorative value of welt as well as its proper stitching to hold it intact with upper, lining and insole lip. Cleans and oils machine and gets defects removed. May sew extra welt if necessary. May sew welt manually using awl and waxed cords.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.0901

Stitching Operator (Footwear)

Stitching Operator (Footwear) performs stitching operations to the upper components of the footwear as per the design instructions given by the designing section. They should be able to stitch the footwear with leather and non-leather components, using maximum accuracy. They should be passionate about creating intricate products without compromising on quality.

Qualification Pack Details:

QP NOS Reference LSS/N3501

QP NOS Name Stitching Operator
(Footwear)

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.1001

Skiver, Machine/Skiving Operator

Skiver, Machine (Footwear) skives (tapers) leather components of footwear on machine for joining. Observes parts to be skived and estimates appropriate depth and angle of skive. Adjusts screws on machines to set feed rolls and cutting angle of knives. Inserts part between feed rollers and depresses pedal to operate knives. Matches skived parts and occasionally adjusts angle or depth of cut in order to obtain smooth joint without ridge. Changes dull knives; cleans and oils machine and reports malfunctioning for repairs. May join skived parts by gluing and stitching. May do hand skiving.

Qualification Pack Details:

QP NOS Reference LSS/N3701

QP NOS Name Skiving Operator
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.1401

Laster, Machine/Lasting Operator

Laster, Machine; Lasting Machine Operator operates machine to pull upper tightly over shoe last and tack sole upper to insole. Pulls lining over last with hand pincers. Places shoe with sole upward against guide of machine and below the tack hammer. Presses pedal to start machine and manipulates shoe to get upper permanently tacked along edges of insole. Watches operation and ensures proper tacking and shaping of shoe. Cleans and oils machine and request repairs when needed.

Qualification Pack Details:

QP NOS Reference LSS/N3801

QP NOS Name Lasting Operator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.1500

Sole Stitcher, Machine

Sole Stitcher, Machine; Sole Stitching Machine Operator (Footwear) operates sole stitching machine to attach outsole of welt or upper and insole of shoe. Places spool of sewing cord on stand of machine and draws cord through tension guide and sewing needle. Sets bobbin in machine. Adjusts machine for size, tension and number of stitches per inch. Sets shoe with sole upwards on table rest of machine underneath needle and steps on pedal to start machine. Guides shoe with hand as needle sews around shanks (waist) and forepart through outsole to upper surface of welt or insole. Stops machine when sole is stitched and removes shoe from machine. Ensures that stitches are properly embedded in channel, cut in outsole. Replaces broken or defective needle and empty spool and bobbins. Oils and cleans machine. May be designated according to type of machine on which worked such as BLAKE-SEWING MACHINE OPERATOR LOCK-STITCHING-MACHINE OPERATOR OR DOUBLE-STITCHING MACHINE OPERATOR.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.1600

Seat Laster, Machine/Lasting Machine Operator

Seat Laster, Machine; Seat Lasting Machine Operator (footwear) operates seat lasting machine to fasten upper heel seat to insole. Operates hand wheel to set machine for size of last. Inserts last with attached upper on heel-seat of machine and heel part into seat-mould. Depresses pedal to raise heel seat to tacking position. Starts machine which automatically draws upper and lining evenly over heel-seat and drives tacks to fasten upper to insole. Removes last with upper from heel-seat and examines for correct shape and tacking. Cleans and oils machine and requests any needed repairs.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.1700

Splitter, Machine/Splitting Machine Operator

Splitter, Machine; Sole Splitter; Bottom Splitter; Splitting Machine Operator (Footwear) operates splitting machine which shaves off rough or flesh side of footwear components such as out-soles, insoles, heel-lifts, welts etc. to required thickness. Examines components visually and decides amount of splitting required. Checks sharpness of splitting knife by sight and touch and adjusts it according to thickness of component required. Switches on machine. Feeds component into feed rollers of machine to shave off fleshy and rough stuff to get surface to required thickness. Watches operation and ensures accuracy in splitting. Places split components manually in container. Oils and cleans machine and gets defects removed when required. May replace blunt or damaged knife in machine.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.1800

Heeler, Machine/Heel Attacher

Heeler, Machine; Heel Attacher, Machine; Heel Attaching Machine Operator nails leather and rubber heels to shoes by machine. Collects heels of proper size to be attached. Sets metal heel-mould of required size in machine. Collects nails of required size, examines them for sharpness of points and feeds them into heel mould. Sets and adjusts pressing plate and nail driver and ensures proper functioning. Places shoe on mould and positions heel on shoe. Starts machine which automatically drives nails through heel and heel-seat and clinches them to insole. Removes shoe from mould and checks accuracy of joining. Cleans and oils machine and gets defects removed if any. May attach heel by hand. May nail iron tips in heel.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.1900

Heel Compressor, Machine (Foot Wear)

Heel Compressor, Machine (Footwear) operates heel compressing machine to compress heels and increase their durability. Selects top and bottom die of required shape and size and sets them in machine. Determines amount of compression required and adjusts gauge

or bottom die accordingly to effect required pressure. Collects and puts heel on bottom die fitted on machine table or places them (heels) one by one on carrier of machine which carries them under compressing die. Switches on machine and presses foot pedal to bring top die on compressing die (bottom die) for pressing and stretching heel to its full flexibility (according to set pressure and shape in die) and stabilize durability. Checks thickness of compressed heels, sorts them according to sizes and ensures uniform compression. Oils and cleans machine and gets defects removed as and when required.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.2000

Sole Leveller, Machine

Sole Leveller, Machine, Sole Levelling Machine Operator levels soles of shoe on sole levelling machine. Adjusts machine according to size of shoe to be levelled. Places shoe on last stand of machine with sole upwards. Marks uneven portions of surface of sole and levels it by beating with hand hammer. Starts machine and rollers. Steps on foot pedal to raise hoe and let moving rollers roll over its sole to press and level it. Removes shoe from stand and ensures proper levelling. Cleans and oils machine and gets defects removed if any. May apply cement with brush while levelling.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.2100

Trimmer, Machine

Trimmer, Machine; Machine Trimmer (Footwear) operates trimming machine to smoothen and trim various parts of shoe. Examines parts of shoe by sight to determine extent of trimming required. Sets proper cutting tool in holding disc of trimming machine. Switches on machine. Holds shoe with both hands and manipulates edges to be trimmed against revolving cutter to trim surplus portions and make surface even. Ensures accurate trimming to avoid damage to other parts of shoe. Cleans and oils machine and gets defects removed if any. May change and grind blunt tools. May operate scouring or sand paper machine to give finishing touches to various parts of shoe. May do trimming by hand.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.2200

Edge Setter, Machine

Edge Setter, Machine (Footwear) operates edge-setting machine to polish edge of sole of shoe for giving shape and desired finish to it. Selects heating copet (iron) according to thickness of sole and fits it in machine holder. Turns on gas flame or lights spirit-lamp fitted to machine. Turns holder containing copet over gas flame or spirit lamp as appropriate to heat it to required temperature. Switches on machine. Holds shoe in both hands against revolving copet and manipulates its (shoes) movement to burnish its entire edge. Applies coating of wax with wax stick on burnished edge of sole. Repeats process of burnishing after waxing to

effect desired polish, shape and finish. Cleans and oils machine and gets defects removed if any. May apply solution over entire edge of sole to fill small holes.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.2300

Edge Burnisher

Edge Burnisher; Edge Burnishing Machine Operator; Edge Polisher (Footwear) burnishes skived edges of leather uppers of shoes by passing them through burnishing machine. Switches on to heat burnishing iron and ensures stipulated performance of guides and roller. Sets skived edge of upper under iron against guides, keeping edge of one piece over other, guides upper under burnishing iron. Regulates heating of burnishing iron by pedal and ensures desired burnishing effect on edges of skived leather. Cleans and oils machine and gets defects removed if any.

ISCO 08 Unit Group Details:

Code 8156

Title Shoe Making and Related Machine Operators

8156.2400

Heel Padding Machine Operator

Heel Padding Machine Operator; Heel Polisher polishes heel of shoe on heel padding machine. Switches on padding machine. Holds wax stick against heated roller of machine to get wax carried to pad or disc of machine. Holds shoe with both hands and manipulates heel against waxed pad for application of hot wax on it

(heel). Presses heel with hands against revolving brush of machine to shine and effect smooth finish. Cleans and oils machine and gets defects removed if any.

ISCO 08 Unit Group Details:

Code 8156
Title Shoe Making and Related Machine Operators

8156.2500**Eyeletting Machine Operator**

Eyeletting Machine Operator; Eye Letter; Eyelet Setter; Grommet Machine Operator operates eyeletting machine which punches holes and places eyelets in holes for lacing shoes. Collects uneyeleted shoes and eyelets and sorts them out according to size, shape, etc. Fills machine hopper with required kind of eyelets. Sets machine and adjusts eyelet spacing plate. Places side of shoe upper to be eyeleted on machine die. Depresses pedal to start machine which automatically punches holes and fixes one eyelet in each hole. Removes eyeleted shoe from machine die and checks for proper eyeletting. Cleans and oils machine and gets defects removed, if any.

ISCO 08 Unit Group Details:

Code 8156
Title Shoe Making and Related Machine Operators

8156.2501**Pre-Assembly Operator**

Pre-Assembly Operator performs the following operations: splitting, gimping, ironing, marking, edge colouring, pasting, folding and eyeletting. They should be well versed with the sequential processes involved in footwear manufacturing. They

should understand the importance of quality within the footwear manufacturing processes and ensure set standards are achieved within the work area.

Qualification Pack Details:

QP NOS Reference	LSS/N3601
QP NOS Name	Pre-Assembly Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8156
Title Shoe Making and Related Machine Operators

8156.2600**Riveting Machine Operator**

Riveting Machine Operator; Sole Screwing Machine Operator (Footwear) operates riveting machine to screw brass screw wire to sole of footwear. Collects spool (hollow cylinder for winding yearn or wire) of brass screw wire. Opens spindle cover and sets spool on it. Draws end of wire through nozzle, closes spindle cover and sets machine at high or low speed as required. Places shoe in horn of machine with sole upwards and starts machine. Presses pedal to raise horn till sole touches nozzle. Sets machine for feed and speed of screwing. Guides shoe with both hands and ensures screwing together of insole, middle sole and sole at desired points. Replaces spool of screw wire as necessary. Removes shoe from machine and checks for proper screwing by touch and sight. Cleans and oils machine and gets defects removed.

ISCO 08 Unit Group Details:

Code 8156
Title Shoe Making and Related Machine Operators

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

8156.2601

Helper – Bottom Making (Footwear)

Helper-Bottom Making (Footwear) provides assistance to the Footwear Machine Operators involved in material lasting, buffing, roughing, adhesive adding etc. They are required to co-ordinate with team members and is required to assist the operators to carry out activities based on the production schedule.

Qualification Pack Details:

QP NOS Reference	LSS/Q3301
QP NOS Name	Helper – Bottom Making (Footwear)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	8156
Title	Shoe Making and Related Machine Operators

8156.2602

Helper–Upper Making (Footwear)

Helper-Upper Making (Footwear) provides assistance to the footwear machine operators involved in material cutting, insole building, stitching, skiving, etc. and carries out folding, adhesive adding and edge colouring. They are required to co-ordinate with team members and is required to assist the operators to carry out activities based on the production schedule.

Qualification Pack Details:

QP NOS Reference	LSS/Q3101
QP NOS Name	Helper – Upper Making (Footwear)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	8156
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Title Shoe Making and Related Machine Operators

8156.2603

Helper-Finishing (Footwear)

Helper-Finishing (Footwear) provides assistance to the footwear machine operators involved in footwear cleaning, polishing and buffing, final inspection and packing processes and carry out material lasting, buffing, roughing, adhesive adding etc. They are required to co-ordinate with team members and is required to assist the operators to carry out activities based on the production schedule.

Qualification Pack Details:

QP NOS Reference	LSS/Q3401
QP NOS Name	Helper – Finishing (Footwear)
NSQF Level	2

ISCO 08 Unit Group Details:

Code	8156
Title	Shoe Making and Related Machine Operators

8156.9900

Cutting, Lasting and Sewing Machine Operators, Other

Cutting, Lasting and Sewing Machine Operators, other perform variety of routine and low skilled tasks in manufacture of shoes using appropriate machines or hand tools and may be designated according to nature of work performed such as Crimping Machine Operator operates crimping machine to give curved shape and wax finish to stitches. Welt Cutter cuts welt from leather sheet using knife. Welt Grooving Machine Operator operates grooving machine to cut groove in welt of shoe.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Channel Opener operates channel opening machine to slit sole of shoe for stitching. Heel Assembler assembles heel lifts for making heel. Last Assembler assembles lasts and closed uppers of appropriate size and shape as per specification. Bottom Filler nails shank to insole at waist of shoe and fills bottom of shoe with sawdust, pieces of leather etc. Upper Cleaner cleans upper of shoes with water and brush and applies coating of prima and dressing. Stitch Cutter cuts stitches on insole and sole evenly using hand knife. Edge Polisher, Hand polishes edges of footwear by applying chemical compound with brush. Decorating Machine Operator (Footwear) operates decorating machine for making decorative patterns on insole. Cementer (Footwear) applies cement glue by brush on footwear components for sole pressing and to ends of upper straps for pasting them on insole. Paster (Footwear) collects sole and midsole from conveyor rack and pastes them together by pressing them with hands.

ISCO 08 Unit Group Details:

Code 8156
Title Shoe Making and Related Machine Operators

Family 8157 Laundry Machine Operators

Laundry Machine Operators operate laundry, dry cleaning, pressing and fabric treatment machines in laundries and dry cleaning establishments.

8157.0100 Washing Machine Operator

Washing Machine Operator washes and cleans garments in power driven washing

machines. Places soiled articles in container of machine. Operates valve to fill machine with water to prescribed level and adds soap and other cleaning agents to water. Opens valves to admit steam into machine to raise temperature of water to and maintain it at desired temperature. Operates controls to start rotation of container. Drains water from machine and refills it as required to rinse articles. Stops machine when articles are washed, cleaned and rinsed and then removes them to drying machine for drying. May operate hydro-extracted machine to extract water out of wet articles.

ISCO 08 Unit Group Details:

Code 8157
Title Laundry Machine Operators

8157.0200 Drying Machine Operator

Drying Machine Operator; Drying Tumbler Operator dries washed or dyed garments by operating hand or electrically driven drying-machine tumbler. Loads cleaned or dyed articles into drum of drying machine. Determines period of time for article to remain in drum according to its nature and texture. Manipulates hand levers or electric switches to start drum and electric fan, and turns hand valves in steam pipes that supply hot air to drum. Stops or switches off machine and ensures that articles are thoroughly dried and odour of cleaning fluid is removed. May operate extractor or washing machine.

ISCO 08 Unit Group Details:

Code 8157
Title Laundry Machine Operators

8157.0300

Dry Cleaner, Machine

Dry-Cleaner, Machine; Dry Cleaning Machine Operator cleans and disinfects woollen and silken garments, textile furnishings and other similar articles with chemical solution or petroleum product by operating power-driven cleaning machine. Places articles in drum of machine and fastens cover. Operates valves to feed chemical solution into machine and operates controls to start rotation of drum allowing drum to rotate until articles are cleaned. Stops rotation of drum and drains off solution. Opens machine, removes articles from it for pressing by machine or ironing by Presser. May periodically, filter dirty cleaning fluid. May sort articles according to colour and condition and type of material. May remove spots or stains by rubbing them with solvent. May examine dry-cleaned articles for any defect or damage.

ISCO 08 Unit Group Details:

Code 8157

Title Laundry Machine Operators

8157.0400

Presser, Machine/Ironing Operator

Presser, Machine operates pressing machine to smoothen and shape garments, textile furnishings and similar articles. Lays garments or other material on padded table of press. Pulls pressing head of machine on to surface of material, pressing head down ward into contact with table and raises pressing head, rearranges material and repeats process till pressing is complete. May oil and clean parts of machine. May press dry-cleaned saris by wrapping them by hand on calendars (Wooden-roller frames) and be designated as CALENDERER, SARIS.

ISCO 08 Unit Group Details:

Code 8157

Title Laundry Machine Operators

8157.0401

Pressman

Pressman also called an 'Ironer' iron the garment components and finished garments. The primary responsibility of a pressman is to iron the garments and fold it as per the customer specifications.

Qualification Pack Details:

QP NOS Reference AMH/Q0401

QP NOS Name Pressman

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8157

Title Laundry Machine Operators

Family 8159

Textile, Fur and Leather Products Machine Operators, Not Elsewhere Classified

This family covers Textile, Fur and Leather Products Machine Operators not classified elsewhere in the group 815, Textile, Fur and Leather Products Machine Operators. For instance, the family includes those engaged in operating and monitoring machines which make hats, tents, mattresses or miscellaneous articles such as braids or other trimmings.

8159.0100

Folder, Machine/Folding Machine Operator

Folder, Machine; Folding Machine Man (Textile) tends machine that folds cloth into measured lengths. Feeds cloth

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

through machine rollers carefully to avoid creases in folded cloth. Watches for and cuts out defective portions. Cuts cloth at specified lengths and stack pieces. May be designated as FRONT MACHINE FOLDER if working at receiving end of machine and as BACK MACHINE FOLDER if working at feeding end of machine.

ISCO 08 Unit Group Details:

Code 8159

Title Textile, Fur and Leather Products
Machine Operators Not Elsewhere
Classified

8159.0200

Splicing-Machine Operator, Automatic (Textile)

Splicing Machine Operator, Automatic (Textile) tends machine that splices (joins) ends of partially filled spools of tire cord and winds cord from one spool to other: Places spools of cord on machine spindles and pulls ends of cord through holding device under needle of sewing machine. Depresses pedal to start sewing machine that automatically sews ends of cord together, cuts thread at end of sewing cycle, and trims excess ends of cord. Removes spliced ends from holding device. Pulls lever to start spindle that winds spliced cord from one spool to another and to turn table, moving succeeding spindles into splicing position. Doffs full spools of cord as table turns complete circle. Mounts cones of thread on machine spindles, ties thread from spindle to thread in machine, and pulls thread through machine guides, tension springs, and needle to thread sewing machine.

ISCO 08 Unit Group Details:

Code 8159

Title Textile, Fur and Leather Products
Machine Operators Not Elsewhere
Classified

8159.0300

Balling-Machine Operator (Textile)

Balling Machine Operator (Textile) tends machines that wind thread, twine, or yarn into balls preparatory to shipping or further processing. Places supply cones or spools on creel rack and threads yarn ends through guides and tension device. Pushes core over spindle of machine or wraps end of thread around shaping device of coreless winder. Pulls lever to start machine to wind specified amount of thread. Doffs balls of thread, using knife to cut thread. Inspects balls for defective winding or soiled thread. May insert labels under the thread. May place ball on the device to crush the centre and wrap end of thread around the centre as binder. May pack balls into boxes for shipment.

ISCO 08 Unit Group Details:

Code 8159

Title Textile, Fur and Leather Products
Machine Operators Not Elsewhere
Classified

8159.0400

Press Operator

Press Operator tends machine that steams and presses wrinkles from woollen cloth: Starts press and manually guides cloth into machine and under weighted cylinder which steams material and presses out wrinkles. Turns hand wheel to adjust cylinder pressure according to type of cloth processed. Sews end of new material to end of material in press, using sewing machine. Cleans and oils pressing machine.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 8159

Title Textile, Fur and Leather Products
Machine Operators Not Elsewhere
Classified

8159.9900

Leather Cutters, Lasters and Sewers and Related Machine Operators, Other

Leather Cutters, Lasters and Sewers and Related Workers, Other include all other Leather Cutters, Lasters and Sewers and Related Workers engaged in making fancy or other leather articles by processes of cutting, lasting, sewing, shaping, etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8159

Title Textile, Fur and Leather Products
Machine Operators Not Elsewhere
Classified

Group 816

Food and Related Products Machine Operators

Food and Related Machine Operators set, operate and attend machinery used to slaughter animals, trim meat from carcasses; bake, freeze, heat, crush, mix, blend and otherwise process foodstuffs, beverages and tobacco leaves.

Occupations in this Group are classified into the following Families:

**8160 Food and Related Products
Machine Operators**

Family 8160

Food and Related Products Machine Operators

Food and Related Machine Operators set, operate and attend machinery used to slaughter animals, trim meat from carcasses; bake, freeze, heat, crush, mix, blend and otherwise process foodstuffs, beverages and tobacco leaves.

8160.0300

Pasteurising Plant Operator (Dairy)

Pasteurising Plant Operator; Pasteuriser (Dairy) operates pasteurizing plant to remove harmful bacteria from raw milk and other dairy products. Pumps cold raw milk or other dairy products through a heating tank; maintains liquid at required temperature for a specified time and pumps it through cooling unit into bottling machine; checks thermometers and gauges and makes necessary adjustments to ensure that liquid is properly pasteurized; cleans and sterilizes tanks and inter-connecting pipes; disconnects filter and renew or cleans straining devices. May drain out pasteurized milk into container through tap fitted in plant.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.0400

Mixing Tank Operator

Mixing Tank Operator tends mixing tank to mix skimmed milk powder and water to form toned milk. Opens taps to admit specified quantity of water into tank as indicated by meter; measures required quantity of milk powder and adds it into tank; switches on machine which churns

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

and mixes powder and water into milk; tests sample to ensure conformity to specification, using testing apparatus; empties tank, cleans and sterilizes equipment.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.0500 **Dairy Processing Equipment** **Operator**

Dairy Processing Equipment Operator operates continuous flow or vat-type equipment to process milk, cream, and other dairy products, following specified methods and formulae: Connects pipes between vats and processing equipment. Assembles fittings, valves, bowls, plates, disks, impeller shaft, and other parts to equipment with wrench to prepare for operation. Turns valves to pump sterilizing solution and rinse water through pipes and equipment and spray vats with atomiser. Starts pumps and equipment, observes temperature and pressure gauges, and opens valves on continuous flow equipment to force milk through centrifuge to separate cream from milk, through homogeniser to produce specified emulsion, and through filter to remove sediment. Turns valves to admit steam and water into pipes to pasteurise milk and to circulate refrigerant through coils to cool milk. Starts pump and agitator, observes pressure and temperature gauges, and opens valves on vat equipment to fill, stir, and steam-heat milk in vat. Pumps or pours specified amounts of liquid or powder ingredients, such as skim milk, lactic culture, stabilizer, neutraliser, and vitamins into vat to make dairy products, such as buttermilk,

chocolate milk, or ice cream mix. Tests product for acidity at various stages of processing. Records specified time, temperature, pressure, and volume readings.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.0700 **Miller, Food Grains**

Miller, Food grains processes rice, wheat, pulses, spices and other food grains by operating one or more machines or by supervising their operations by other workers. Adjusts and operates machines for removing husk or bran from grains, polishing rice, grinding and crushing grain and spices into smaller pieces or powder, grinding, shifting and screening grains, flour or spices etc.; observes and supervises milling process for desired results, maintains flow of milled product by regulating flow of ingredients in specified proportion; removes obstructions by tapping clogged spouts with mallet and by adjusting gates; examines product periodically by rubbing sample between fingers or comparing it with colour and texture of standard sample; keeps records of materials received and products milled. May supervise other workers at various stages of processing. May be designated according to type of grains milled or processed such as MILLER, RICE; MILLER, SPICES; MILLER, DAL; etc.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.0800

Husker, Machine (Food Grains)

Husker, Machine (Food grain); Hullerman, Grain operates husking machine to separate grain from its outer covering or shell. Starts machine; pours grain into storage bin attached to machine; regulates feeding of grain into machine by manipulating lever; examines hulled grain periodically for proper husking and adjusts machine as necessary; switches off machine after completion of process or when machine does not function properly; removes minor defects and reports major defects to supervisor for rectification. Cleans and oils machine when not in use. May keep production reports, may direct workers in storage of graded grain.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.0900

Roller Man, (Food Grains)

Roller Man (Food grain) operates rolling machine to crush grain into flour. Adjusts rollers according to fineness of grinding required; starts machine and regulates flow of grain from hopper to grinding rolls; observes crushing process keeping grain moving at regular rate by tapping clogged spouts with mallet (a wooden hammer or one made of rubber or raw hide) and by adjusting gates; examines product periodically by rubbing sample between fingers or by comparing texture with those of standard sample; detects working defects if any of machine by sight or sound; removes minor defects and reports major defects to supervisor for rectification. May clean roller machine and also roll flour.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.1000

Flour Mill Operator

Flour Mill Operator operates grinding machine or mill to grind wheat, gram or other grains into flour or animal feed. Sets mill by adjusting roller according to fineness of grinding desired; feeds grain into feeding bin of mill by hand; observes process, keeping grain moving at regular rate by tapping clogged spouts with hammer and by adjusting gates; examines crushed product periodically by feel of fingers and adjusts roller as necessary; removes flour collected in bag or container at delivery end; cleans and oils machinery. May weigh grain and flour, calculate charges and collect payment of services rendered to customers. May dress mill stones.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.1100

Siever, Machine

Siever, Machine; Sieving Machine Operator; Sifter, Machine (Food Processing) tends battery of rotary or oscillating screens to separate and remove bran or other foreign matter from food grains, seeds, flour etc., or sort tea, coffee and other food grains by size. Fits sieves of desired size into machine frame; dumps product into hopper of machine; places empty container at delivery end of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

sieve; starts motor to activate screens; opens hopper gate which automatically allows product to pass through different sizes of sieves and removes bran, dust and other foreign matter or sort product into different sizes; checks product passing over different screens to prevent clogging and overflow; removes and replaces defective parts of damaged sieves. May wash grains with water.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.1200

Oil Crusher Operator, Power

Oil Crusher Operator, Power operates crushing machine for extracting oil from seed such as cotton seed, castor seed, copra and groundnut. Places empty container below crusher; starts machine and feeds oil seeds into hopper of machine; sprinkles prescribed quantity of water over oil seeds to moisten them; turns hand wheel to adjust pressure between rollers and ensures that oil is properly extracted; examines oil cakes visually or by touch to determine that sufficient quantity of oil has been removed; removes container when filled with oil at delivery end for further processing and replaces it with empty one; take out oil cakes from hopper of crusher and fills hopper with fresh oils seeds to maintain continuous production; cleans and oils machine and keeps work place clean and tidy. May specialize in extraction of oil from, particular type of seed. May operate animal driven indigenous crusher for extracting oil from seeds. May operate filter crushed oil.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.1300

Filter Press Operator (Oil)

Filter Press Operator (Oil) operates filter presses to filter oil and remove mud and other sediments. Covers filter plates with canvas cloth. Closes press, causing plates to come together forming seal, opens valve to feed press with oil for filtering at required pressure by observing pressure gauge of filter press; ensures that filtered oil is collected at receiving end through taps; inspects filtrate for clarity and draws samples at various stages of filtering process for laboratory analysis; turns off tap or cock if oil runs cloudy through taps; stops pump or valve in case of leak developing in press; cleans filtered impurities and sediments from frames, screens and filters using water, steam, or compressed air; opens filter press, dislodges solid materials from between frames, and replaces filtering media; cleans and washes used filter cloth and dries them in sun before using again. May operate one or more presses. May adjust or repair equipment.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.1500

Wafer Baking Machine Operator (Baking)

Wafer Baking Machine Operator (Baking) operates wafer-making machine for moulding dough and baking it into wafers. Fills hopper machine with dough; starts

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machine and turns set screw to regulate amount of dough deposited in mould; turns thermostat to adjust temperature of moulds; observes colour of baked wafers being ejected into conveyor to detect defects; collects wafer sheets from machine and places them on clean smooth table; joins them properly in rack; may tend machine which also rolls dough into shape of cones prior to baking and be designated CONE BAKER, MACHINE. May arrange cut wafer biscuits in wafer stacking tray systematically.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.1600

Cooker Operator

Cooker Operator; Crystallizer (Confectionery); Pan Attendant (Confectionery) operates steam heated open pan or vacuum pan to cook glucose, sugar, milk, water and other ingredients into syrup of required consistency for making candies or sweets. Mixes sugar, water, glucose, milk and other ingredients in prescribed proportions according to formula and pours mixture into cooking kettles, turns valves to admit steam and sets pressure gauge and thermostats to cook ingredients at specified temperature; stirs syrup occasionally while it is cooking, tests consistency of syrup with a hydrometer; opens discharge valve and starts pump or tilts cooker or kettle to pour or dump syrups into heaters or onto cooling belts or tables. May beat or knead confection to attain specified consistency as determined by colour and texture. May be designated according to type of confectionery cooked as CRYSTAL SYRUP MAKER (Confectionery); COCONUT

COOKER (Confection) or equipment used as VACUUM-COOKER OPERATOR (Confectionery).

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.1700

Cutting Machine Operator (Confectionery)

Cutting Machine Operator (Confectionery); Candy Cutter, Machine operates machine for cutting candy into pieces or strips of desired shape and size. Cuts slab of candy into sections, using knife; selects cutting dies, mounted on shaft, according to specified width of cut, and installs cutting discs in machine; starts machine; feeds candy to machine through sizing rollers for automatic formation, slicing and cutting into strips and pieces of specified size and shape; weighs random samples to ensure conformity of product with size and weight specifications; dusts candy with flour or starch to prevent sticking; cleans machine and keeps place tidy. May be designated according to candy processed as CARAMEL CUTTER, MACHINE; MACHINE MAN, LOZENGES; TOFFEE MACHINE MAN.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.1800

Chocolate Maker, Helper

Chocolate Maker, Helper operates any of following machines and equipment to relieve regular operators engaged in processing cocoa beans into chocolate

liquor and in producing cocoa powder and sweet chocolate, according to formula: Controls roaster that roasts cocoa beans to develop specified colour and flavour and reduces moisture content of beans. Tends mill to grind nibs (cracked cocoa beans) into liquid chocolate of specified fineness. Tends hydraulic press to extract cocoa butter from chocolate liquor, and operates cocoa room machinery and equipment to grind and pulverise cocoa cakes into cocoa powder. Mixes ingredients, such as chocolate liquor, sugar, and powdered milk to make sweet chocolate. Operates refining machine to grind chocolate paste to specified consistency. Operates tempering equipment to control temperature of chocolate in cooling process before moulding. May tend moulding machines, pressure cookers, and dryers. May assist in supervising and training production line workers.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.1900

Flake Miller, Wheat and Oats (Grain-Feed Mills)

Flake Miller, Wheat and Oats (Grain Feed Mills) operates drier, huller, separator, steel cutter, cooker, and flake roller machines to produce wheat and oats flakes, according to specifications: Adjusts slides in chutes and turns valves to regulate flow of grain to machines. Adjusts flow of air to dry grain and feels grain to determine hulling capability. Observes hulling process and adjusts speed of machines that remove and separate hulls from oats. Turns valves to regulate temperature and moisture in

cooker, and adjusts tension on flaking-machine rolls, according to hardness and size of grain.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.2000

Noodle Press Operator

Noodle Press Operator operates machine to blend ingredients, and knead, extrude, and cut dough used to make noodles: Installs specified die in press, using hand tools. Adjusts press rollers to regulate thickness of dough, using micrometre and hand tool. Dumps premeasured quantity of eggs into tub, sets meter, and turns spigot to admit prescribed amount of water. Starts beater to mix eggs and water for specified time. Starts pump s to transfer mixture to mixing unit of press. Opens hopper to admit flour into mixing unit and starts press to process mixture. Turns screw to set speed of knives to cut product to specified length. Patrols drying chambers and observes temperature and humidity readings recorded on charts for variation in drying procedure. Reports chart deviations to Production Manager. Records type of product, date, and time of entry and discharge of product from drying chambers.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.2200

Peeling Machine Operator (Food Canning and Preserving)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Peeling Machine Operator (Food Canning and Preserving) operates and feeds machine to remove skin from fruit and vegetables preparatory to canning and preserving. Checks preliminary washing and cleaning of fruits and vegetables by hand; feeds product into hopper of machine; starts machine; checks at stages peeling process; regulates flow of water inside peeling tank; discharges product through outlet valve on completion of peeling. May be designated according to type of fruit or vegetables peeled such as APPLE PEELER; ONION PEELER.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.2300

Pitting Machine Operator (Food Canning and Preserving)

Pitting Machine Operator (Food Canning and Preserving) operates and feeds machine to remove pits, seeds or stones from fruits preparatory to canning and preserving. Feeds fruits by hand into hopper of machine; starts machine; observes revolving of drum containing fruits, stoppage of drum when unpitted fruit positions pitting knives, peering of knives in between fruits to remove pits, seeds or stone; examines product periodically to ensure that process is proceeding correctly. Stops machine when process is complete and removes product. May be designated according to product pitted as CHERRY PITTING MACHINE OPERATOR; APPLE PITTING MACHINE OPERATOR.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.2400

Fruit Press Operator (Food Canning and Preserving)

Fruit Press Operator (Food Canning and Preserving) sets and operates power press for extracting juice from fruits for canning and preserving. Places frame equipped with filter cloth on press cart; pulls lever or turns valve to release fruit from hopper or pipe line onto filter cloth; spreads fruits evenly over filter, folds corners of cloth to cover fruit, and removes forming frame; pushes cart loaded with fruit into press; starts press; pulls cart from press and dumps fruit pulp into container. May start pump to transfer juice to storage tanks. May work on fruit reaming machine or pulping machine and be designated accordingly.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.2500

Seaming Machine Operator (Food Canning and Preserving)

Seaming Machine Operator (Food Canning and Preserving); Can-Sealer Operator seams tops or bottoms on metal containers to form open-top cans or to close filled cans by feeding and tending automatic double seaming machine. Loads feed hopper of machine with tin-can ends (tops or bottoms); starts machine; observes machine operations as can shells or filled cans enter machine in upright position by conveyor and are automatically closed to ascertain that cans and ends are properly joined and seamed

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

together; stops and clears machine when jams occur. May oil and make minor repairs to machine. May make adjustments to mechanism to accommodate various sizes of containers.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.2600

Retort Operator (Food Canning and Preserving)

Retort Operator; Cooker, Pressure (Food Canning and Preserving) controls retort chamber (steam pressure cooker) to cook canned foods according to specifications. Pushes trucks or lowers baskets of canned foods into chamber of retort, using hoist; closes retort door or lid to seal chamber; observes dials and thermometers, and turns valves to admit steam to retort and to control temperature, pressure, and cooking time; turns valves to release steam and admit cooling water into chamber to prevent overcooking at end of cooking cycle. May open retort and move basket of canned food for cooling trough, using hoist.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.2700

Processing Man (Food Canning and Preserving)

Processing Man (Food Canning and Preserving) heats containers of canned or preserved foods to sterilise their contents, by means of hot water vats, troughs, or retorts. Fills vats or troughs with hot

water; heats water to required temperature by steam or gas; loads material by hand or mechanical hoists; keeps seamed cans for a specified time in hot chest; removes sterilized seamed cans from chest box and cools processed cans in retort, injecting compressed air to counteract pressure within cans. May clean sterilising chambers at regular intervals.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.2800

Panman (Food Canning and Preserving)

Panman (Food Canning and Preserving); Cooker syrup; Syrupman tends equipment to mix ingredients that produce syrups used in canned fruits and preserves, flavourings, frozen novelty confections, or non-alcoholic beverages. Determines amounts of ingredients, such as sugar, water, and flavouring, required for specified quantity of syrup of designated specific gravity; opens valve to admit liquid sugar and water into mixer; adds flavouring ingredients and starts mixer to make syrup; opens valve to admit steam into jacket of mixer to invert sugar, eliminate air, and sterilize syrup; tests syrup for sugar content, using hydrometer; pumps syrup to storage tank. May filter syrup to remove impurities and be designated as SYRUP FILTERER. May blend raw syrups and be designated as SYRUP BLENDER.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.2900

Exhaust Box Operator (Food Canning and Preserving)

Exhaust Box Operator (Food Canning and Preserving) removes or expels air from fruit tissues and containers by placing and keeping them immersed in hot water bath or steam chest for specified period. Places filled caps with top open on conveyor belt; starts exhaust box; regulates speed of conveyor to allow cans to pass through steam filled channel for a specified time; admits steam into exhaust box to raise temperature to heat can to expel air from fruit tissues; stops and clears machine when jams occur. May oil and clean machine.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.3000

Foodstuff Freezer

Foodstuff Freezer freezes fruits, vegetables and other foods before or after packing. Places prepared food or cartons of food on shelves or on moving belt in freezing unit. Regulates temperature and freezing time. May remove frozen food.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.3100

Peanut Blancher

Peanut Blancher tends blanching machine that removes skins from shelled peanuts:

Starts machine and pours peanuts into machine hopper. Inspects peanuts as they fall from machine onto moving belt and picks out foreign matter, unblanched peanuts, and peanuts that fail to meet production specifications. May sack blanched peanuts. May tend sorting machine that electronically locates and removes unblanched peanuts.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.3200

Dehydrator Tender (Canning and Preservation)

Dehydrator Tender (Canning and Preservation) tends sulphur and drying chambers to bleach and dehydrate fruit: Starts conveyors to load trays with fruit, and levels fruit in trays to ensure thorough processing. Pushes loaded cart into sulfurizing chamber and lights burner to generate fumes. Moves cart from sulfurizing chamber into drying chamber to dehydrate fruit. Observes gauges, and regulates and maintains specified temperature and humidity in drying chambers. Feels and observes fruit during dehydrating process to ascertain firmness and colour in accordance with standards. Pulls cart from heating chamber. May record drying time of each load.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.3300

Refining-Machine Operator (Oil and Grease)

Refining Machine Operator (Oils and Grease) tends machine that refines crude oils, such as soya bean, cottonseed, and peanut: Turns valve to pump oil and caustic solution from storage tanks into machine tanks as specified. Starts machine to separate caustic from oil by centrifugal force. Sets thermostat, observes gauges, and regulates valves to maintain prescribed temperature in wash and dryer tanks. Turns valves to pump mixtures to wash and dryer tank to remove by-products with water, and impurities with heat. Turns valve to pump refined oil to storage tanks. Cleans bowls, using water and steam. May test samples of crude and refined oil to determine specific gravity and free fatty acid content, using hydrometer and refractometer.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.3400

Crusher Operator, Sugarcane

Crusher Operator, Sugarcane; Mill House Foreman; Mill House In Charge Fitter; Mill House Head Fitter; Mill House Head Worker sets and operates power driven roll pressure to extract juice from sugarcane for making sugar, Gur and khandsari sugar. Receives instructions and sets roll pressure according to type of sugarcane to extract maximum possible amount of juice without damaging rollers or machinery; watches cane crushing operations both by sight and sound; directs rate and speed of crushing according to load; mixing of juice from subsequent set of rollers to previous one and bagasse removal. Attends to oiling and cleaning of rollers and major and minor repairs, and conducts overhauling

and major repairs during off-season. May be designated as KOHLU OPERATOR, if operates and feeds animal driven sugarcane crusher for extracting juice.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.3500

Filter Pressman

Filter Press Man; Filter Press Operator; Assistant. Press Man; Filter Press Mate; Press mate (Sugar) operates filter press to filter mud and other sediments from sugarcane juice preparatory to further processing for making sugar. Covers filter plates with cloth or canvass and tightens hand screw to close press; dries filter cloth, if necessary, by operating valve and passing steam into press; opens and regulates valve for juice to be pumped into press till specified pressure is indicated on gauge fitted to pump; watches flow of filtered juice into receiving channel, and directs juice to another press, when flow of filtered juice gets clogged. Washes mud on filter cloth by opening hot water valve; opens steam valve to pass steam into filter cloth for drying mud cake; opens press and gets mud scraped off filter cloth, uses filter press cloth washed for re-use, and filter plates and floor cleaned and washed for next filtration. May be designated as ROTARY FILTER OPERATOR, if operates power driven rotary filter having perforated drum to separate mud and other sediments from juice, by admitting muddy juice into tank of machine and rotating drum through which juice is sucked while mud sticks to drum and is subsequently scraped off by knife or blade attached to machine.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.3600

Dorr Clarifier Operator

Dorr Clarifier Operator; Batch Attendant; Dorr Subsider Attendant; Dorr Clarifier Attendant operates clarifier which settles mixture of juice, lime and super phosphate heated to determined temperature for clarifying juice. Boils mixture of juice and lime to prescribed temperature in subsider unit; collects samples of juice in test tubes by turning test cocks of overflow pipe, observes them against light to ascertain clarity of juice before letting out to evaporators, or takes samples of juice periodically to check quality of clarification using BTB (Bromo-Thymal Blue) Paper; manipulates valves to let out juice from different compartments of Dorr, opens bottom cocks, checks sample and ensures mud level is not above prescribed limit; examines consistency of mud and regulates it draining out from unit. Drains out mud from subsider to mud tank, as necessary, and cleans mud deposited in tank once in each shift; pours heavy oil once every week over surface of juice in subsider to prevent vapour escaping. Ensures efficient working of different compartments and components of unit. May guide Evaporator Operator in co-ordinating supply of decanted juice from Dorr into evaporator.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.3700

Evaporator Operator, Sugar

Evaporator Operator, Sugar; Evaporator Attendant boils sugarcane juice in evaporators to evaporate excess water till syrup of specified consistency is obtained preparatory to further processing in manufacture of sugar. Operates valves to admit juice in evaporator up to prescribed level; starts vacuum pump to create vacuum and admits exhaust steam into evaporator for heating juice to boiling point; watches and regulates temperature, pressure gauges, as necessary; transfers boiling juice from one evaporator to another, by operating valves, to re-boil juice in each evaporator for forming syrup of required consistency; checks frequently samples of syrup drawn from last evaporator, using hydrometer; repeats the process till syrup of required consistency is formed; releases syrup for storage in tank for further processing. Ensures against air leakage in line to prevent disturbance in boiling; keeps record of data relating to working of evaporators. May use live steam if temperature of exhaust steam falls considerably. May attend to more than one evaporator and be designate as TRIPPLEMAN, QUAD/QUADRUPLE MAN, etc., according to number of evaporators operated.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.3800

Pan Man, Sugar

Pan Man, Sugar operates vacuum pans to further boil syrup received from evaporators till syrup has crystallized to

proper point. Creates vacuum in pan by steam ejector; operates intake valve to fill pan to proper level with syrup from evaporators; opens exhaust or live steam valve to let into pan hot steam to boil syrup to required density till it runs into massecuite (thick mixture of crystals and syrup); keeps watch on and regulates temperature; pressure gauge etc. to maintain correct boiling pressure; examines sample periodically, on clean glass slide to check visually against light or to feel by touch to determine if crystals have formed, as desired; takes in further seed i.e., grains of required size, obtained from earlier operation, more water to thin juice or syrup and re-boils, if necessary, to make specific type of massecuite; manipulates levers and valves to break the vacuum and shut steam; opens slide valve to drop massecuite into crystallisers below. May distribute or transfer syrup containing grains to other pans as required for making specific type of massecuite. May clean pan with steam. May be designated as HEAD PAN MAN, OR PAN IN CHARGE, if engaged on supervision of pan station; or ASSISTANT PAN MAN, if employed to assist Pan Man.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.3900 Crystallizer Man

Crystallizer Man; Crystallizer Operator, Sugar; Crystalliser Attendant; Pan Floor Worker, Crystallizer Mazdoor tends crystalliser tank to cool boiling massecuite received from pans for developing into sugar crystals. Operates valves and pulls trap doors to allow required quantity of boiling massecuite into crystalliser tank

through open sheet metal channels, called gutters; starts stirrers in tank and admits and adjusts flow of cooling water in coils around tank to prevent solidification of massecuite and to ensure its cooling evenly and at controlled rate; stops machine when required state of crystallisation has been obtained; opens trap doors and drains off massecuite from crystalliser for pumping to centrifugal machine after specified cooling; cleans and washes gutters, trap doors etc. with water after delivery of massecuite. May add powdered sugar to massecuite to induce crystallisation.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.4000 Centrifugal Man

Centrifugal Man; Centrifugal Operator; Centrifugal Machine Man; Centrifugal Mate operates centrifugal machine for separating sugar crystals from massecuite. Switches on motor; operates lever to lower delivery channel; admits required quantity of massecuite pumped from crystalliser into container of centrifugal machine; closes sliding top covers of centrifuge, allows it to develop speed and spin massecuite at high speed separating syrup or molasses from crystals which adhere to walls of container; sprays water with hose or manipulates valve for automatic spray to wash sugar once or twice during operation for developing massecuite; pulls lever, stops machine and scrapes off sugar from walls of centrifugal container by wooden scraper, manipulating worm and worm shaft; drops scraped off sugar into magma mixer or conveyor according to type of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

massecuite operated. May manually feed massecuite into centrifugal machine.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.4100

Magmaman

Magma Man; Magma Mixture Attendant; Magma Operator; Magma Mazdoor prepares magma (solution) from sugar of massacuites by adding water, syrup and molasses and by mechanically stirring for re-processing. Receives sugar extracted from different massacuites into mixing tank; operates lever and starts its mechanical stirrer; opens valves and adds hot or cold water and sulphurated syrup with sugar in tank, as necessary, for making required type of magma; ensures thorough mixing; operates steam pumps and delivers magma to pan station, sulphitation tank, or seed mixer, as specified, for re-processing.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.4200

Cutter Driver

Cutter Driver; Knife Engine Driver; Engine Driver Knife; Motor Attendant, Knife operates electrically or steam driven high speed knife engine cutter to size incoming sugar-cane and to transmit sized sugarcane by elevator to mill house for extracting juice. Switches on motor to operate cutter; signals Cane Carrier Driver to operate cane carrier; watches load on

cane carrier to avoid jamming or breaking of cutter blades; stops cutter, when necessary, by operating valves; changes cutter blades and does minor repairs periodically, and during stoppages, if necessary. May attend to lubrication of engine, look after machine, and assist in repair and overhauling of cutter.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.4300

Cane Carrier Driver, Mill House

Cane Carrier Driver, Mill House; Carrier Driver Sugar operates power driven mill house cane carrier to feed sugarcane into mill house rollers. Starts mill house cane carrier and regulates its speed by regulator or clutch wheel to prevent extra load and choking; removes jamming of sugar-cane in first rollers; gets speed of crushing mill and cane conveyor regulated to suit ultimate feeding into rollers. May attend to repair and overhauling of cane carriers.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.4400

Raw Juice Tank Pump Attendant

Raw Juice Tank Pump Attendant; Juice Pump Man regulates flow of juice from mill house to top tank by operating and adjusting valves of juice pipe line. Watches flow of raw juice to top tank and controls flow by opening or closing valves; closes and stops pump valve when top

tank gets filled; collects juice samples for laboratory tests; cleans empty raw juice tank periodically; lubricates maceration and mixed juice pumps.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.4500

Juice Measuring Man

Juice Measuring Man; Raw Juice Measuring Tank Man; Juice Weighing Man; Juice Weighing Attendant measures or weighs and records weight of, sugarcane juice received from mill house by automatic weighing and recording machine for calculating sugar recovery. Watches automatic filling of juice pumped from fill house into weighing tanks and records readings of automatic recording instruments, tabulates weight of juice from recorded readings, and maintains registers showing number of times tanks filled, indicating data also on black board for ready information; collects samples of mixed juice from every tank for analysis and arranges for addition of super sulphate to mixed juice, if necessary; checks up tare weight frequently; supplies account of juice received to various officers, as scheduled. May operate valves, in absence of automatic arrangement, to fill measuring tanks with raw juice.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.4600

Lime Juice Tank Attendant

Lime Juice Tank Attendant; Milk of Lime Tank Attendant; Lime Attendant supplies juice by operating valves, from milk of lime tank to juice heater for mixing it further with raw cane juice for boiling. Ensures that milk of lime tank is full; opens valves by hand and watches flow of milk of lime into juice heater; controls pumping rate to prevent overflow of milk of lime tank and to give steady supply of milk of lime into juice heater; opens valve to fill juice heater with raw cane juice from top tank; watches level of mixed juice in juice heater and closes inlet valve when prescribed level is attained. May add prescribed quantity of milk of lime and sulphur dioxide to raw cane juice.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.4700

Juice Heater Man

Juice Heater Man; Juice Heater Attendant heats raw juice by steam to required temperature in tubular or cylindrical juice heaters for further processing. Receives juice into tubes or cylinders of juice heater by opening or directing opening of inlet valve; heats juice to required degree of temperature by opening steam valve and letting in exhaust steam inside heater; maintains constant pressure by regulating pressure gauge and steam valve. Prevents inter-mixing of raw juice and sulphitated juice and leakage of juice into condensers by guarding against leakage from cover, walls and tubes of juice heaters; informs shift Chemist in case of leakage or other defect. Gets tubes, cylinders and other parts of heaters cleaned by Juice Heater Helper. May use live steam if temperature

of exhaust steam falls below prescribed limits. May direct removal of hot juice in buckets in case of pump failure. May conduct periodical repair and over-hauling of heaters.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.4800**Juice Heater Helper**

Juice Heater Helper; Juice Heater Cleaner cleans juice heaters and assists juice Heater man in operating heaters for heating juice in sugar manufacture. Opens and adjusts valves as directed by Juice Heater Man and admits raw juice, into tubes or cylinders of juice heater; assists in maintaining constant specified steam pressure during heating; lifts heater top cover, removes left-over juice and cleans periodically tubes, cylinders and other parts of heaters, using portable power driven or hand brush, cleaning rod, water, etc. Gets the juice heater emptied by carrying hot juice in buckets in case of leakage of tubes or breakdown of heater. May assist in letting in live steam in juice heater and in repair and overhaul of heaters.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.4900**Carbonation Man**

Carbonation Man; Carbonation Mate; First Carbonation Man; Lining Man tends carbonation tanks to purify sugarcane

juice by mixing heated juice with milk of lime and carbon dioxide with a view to precipitating mud and impurities from it. Admits heated juice in first carbonation tank up to overflow-pipe level; admits and controls flow of prescribed quantity of milk of lime into juice; lets in continuous flow of carbon dioxide and allows ingredients to mix thoroughly; tests solution with testing paper to determine sufficiency of ingredients; makes adjustments to ensure correct composition of mixture, if necessary; discharges the carbonated juice into storage tank for onward pumping to filter press. May get pipe line, tank and other equipment repaired or overhauled. May be designated as SECOND CARBONATION MAN, if engaged on passing and adjusting flow of carbon dioxide into juice flowing into second carbonation tank after first filtration, testing solution with testing paper, and allowing juice to flow off for second heating.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.5000**Carbonation Storage Tank
Attendant**

Carbonation Storage Tank Attendant; Carbonation Juice Pump Attendant tends carbonated storage tank and arranges pumping of carbonated juice to filter press. Ensures filling of carbonated juice in main storage tank and filling of bottom tank from it, by operating tap or valve and watching overflow pipe, opens pump line valve to pump off juice to filter press at desired speed; cleans tank strainer frequently to maintain easy flow of juice in pumping. May regulate flow of juice in

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

bottom tank and operate pump, if necessary. May be designated as FIRST/SECOND CARBONATION STORAGE TANK ATTENDANT if engaged on first or second carbonation tank.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.5100

Sulphitation Man, Sugar

Sulphitation Man, Sugar; Sulphitation Tank Attendant; Sulphitation Tank Mate tends sulphitation tank for passing sulphur dioxide into filtered juice to further clarify and bleach it before further processing. Operates valve to let in juice, after filtration, into sulphitation tank up to prescribed level; tests specific gravity, if required, with hydrometer; manipulates valves to admit required quantity of milk of lime and sulphur dioxide into tank and allows it to be mixed with juice, takes out samples of mixed juice frequently and tests it with indicator (BTB) paper to determine sufficiency of lime and sulphur, adding needed ingredients, where necessary. Conducts second sulphitation, in similar manner, by taking in syrup, instead of juice, coming in from evaporators, by passing sulphur dioxide to clarify it and by taking out samples in test tubes to test with BTB paper. Opens delivery valve to pump out sulphurated juice or syrup to storage tank or clarifier through juice heater. Conducts periodical cleaning and checking of tank equipment and pipe line to maintain it in proper working condition. May be designated as SULPHITATION MAN, (JUICE) if engaged on (first) sulphitation of juice; or SULPHITATION MAN, SYRUP, if engaged on (second) sulphitation of syrup.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.5200

Eliminator Attendant, Sugar

Eliminator Attendant, Sugar; Eliminator Mate boils sulphurized juice or syrup received after sulphitation to remove certain impurities. Opens valve to let in juice or syrup into tank up to prescribed level; opens steam valve to heat coils and boil juice or syrup by maintaining temperature of juice or syrup at specified level; checks periodically temperature of juice/syrup with thermometer; closes steam valve after boiling for prescribed period; operates valve to discharge boiled juice or syrup into settling tanks; opens bottom valve of tank to drain off sediments to another tank; takes samples of clean juice/syrup in test tubes to check it for desired clarity May be designated as SULPHURATED SYRUP TANK ATTENDANT OR SYRUP HEATER ATTENDANT if engaged on boiling and clarifying syrup.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.5300

Settling Tank Man, Sugar

Settling Tank Man (Sugar); Settling Tank Attendant; Clarifier Attendant, Sugar attends to settling tanks to separate sugar cane juice/syrup from mud and other sediments. Receives juice/syrup from eliminators into settling tank and allows it to remain in tank for specified period to let mud and other sediments settle down

at bottom; opens valve to allow clear juice/syrup to flow out for further processing, lets out muddy juice/syrup for further filtering. Cleans and washes tanks assisted by operatives.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.5400

Works Poor Attendant

Works Poor Attendant tends works poor machine to cool massacuite to required temperature before being pumped to respective centrifugal machine for separating sugar crystals. Opens valve from crystalliser and allows massacuite to flow into works poor machine up to prescribed level; presses hand lever to start stirrers in machine; checks and ensures running of cold water through tubes inside machine; prevents solidification of massacuite by diluting with water, if necessary; regulates flow of massacuite from works poor into pump feeding centrifugal machine.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.5500

Gur Maker

Gur Maker makes 'gur' from juice of sugarcane, palm, etc. Sieves raw sugarcane or palm juice to clean impurities; boils raw juice to required temperature in open pan over fire or using suitable heating device, taking out scum from top of boiling juice from time

to time; frequently sprinkles water on boiling juice to avoid overflowing and for maintaining proper temperature; evaporates excess water till syrup of desired viscosity is obtained; adds milk of lime or other cleaning agent, as necessary, to clarify boiled syrup; strains syrup and allows it to settle to remove sediments, mud and impurities; transfers concentrated syrup from pan into wooden vats; allows it to cool and harden into gur. May clean pans, vats, work area.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.5700

Tea Maker

Tea Maker controls various processes in tea factory to treat and prepare green tea leaves fit for brewing and final preparation of green or black tea. Checks that green tea leaves are withered in lofts, by Withering Loft Attendant and have proper moisture content, before rolling; ensures that withered leaves are properly rolled by Roller Attendant; arranges for fermenting of rolled leaves and examines them by touch, sight and smell for proper fermentation before firing or drying; checks that fermented leaves are dried at required temperature by Firing Machine Attendant and processed tea leaves are properly sorted and graded by Tea Factory Operatives; examines sample infusion of different grades of tea and tastes to decide if colour, flavour and aroma are according to desired standards.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.5800**Withering Loft Attendant (Tea)**

Withering Loft Attendant (Tea) tends lofts on which green tea leaves are withered and supplies withered leaves to rolling machine. Spreads green leaves thinly with hands or stick on layers of gunny or hessian cloth in withering lofts; allows leaves to wither for required time, according to their moisture contents and weather conditions; checks leaves in different lofts for proper withering, judging by touch or sight; collects withered leaves from lifts by hand and pushes required quantity through opening on floor to feed rolling machine below on receipt of signals from Roller Attendant. May tend Rolling and Firing Machine.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators**8160.5900****Roller Attendant**

Roller Attendant; Rolling Machine Attendant (Tea) feeds and tends rolling machine to roll withered tea leaves. Signals Withering Loft Attendant to supply withered leaves for rolling; charges roller drum with required quantity of withered leaves by hand or basket; starts machine pushing lever to roll withered leaves for specified time; adjusts pressure of machine as required by manipulating lever; stops machine when leaves have been rolled and opens trap door to release them into container placed below. May feed and tend roll breaking machine to sieve rolled leaves.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators**8160.6000****Pulp Houseman (Coffee)**

Pulp Houseman (Coffee); Pulping Machine Attendant operates pulping machine which cuts and removes fleshy pulp from ripe coffee berries. Feeds or dumps into hopper of machine with ripe coffee berries manually; opens valves to let water flow into machine; regulates flow of berries into machine by adjusting hopper door opening to let them drop steadily over running water; starts machine; observes operation of cutting and removing of flesh from berries; allows pulped berries to flow into tank which drains water and retains berries; removes pulp from machine to dump-yard; refills tank with water up to required level and rakes beans in water using wooden ladle to clean remaining fleshy skin from beans; drains out water and removes cleaned coffee beans and spreads them in open yard for drying; keeps pulp house clean and tidy. May attend to running repairs to machine.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators**8160.6100****Peeling Machine Attendant
(Coffee)**

Peeling Machine Attendant (Coffee); Huller Man (Coffee); Machine Room Worker (Coffee) tends huller to remove husk from pulped coffee beans. Starts machine; feeds required quantity of beans

into hopper of machine; adjusts gate in spout to regulate flow of beans into reel; observes milling process, inspects beans and adjusts rollers to prevent damage to beans and proper dehusking of beans. Performs related duties such as lubricating equipment and repairing machinery. May keep production report. May direct workers in storage of graded coffee beans.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.6200**Firing Machine Attendant (Tea)**

Firing Machine Attendant; Drier (Tea) tends firing or drying machine to dry rolled and fermented tea leaves, spreads rolled and fermented leaves evenly on tray beds of firing or drying machine; manipulates valves to control flow of hot air for maintaining proper temperature in drying chamber; checks by touch, smell and sight whether leaves have been properly dried; manipulates levers to drop dried leaves on floor or containers placed below; sends samples of cured tea leaves to Tea Maker for testing.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.6300**Tea Blender**

Tea Blender operates machine which mixes various grades of tea. Opens boxes of tea and weighs out specific quantities of each sort. Scoops or shovels weighed out quantities into machine and starts it.

Ensures that tea is blended properly and decides when blending is finished. May deliver mixture to packing machine.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.6400**Coffee Blender**

Coffee Blender operates machine to mix various grades of green coffee. Empties bags of various grade of coffee, as specified in formula, into bin of machine. Starts blending mechanism, which mixes coffee. Ensures that coffee is blended properly and decides when blending is finished. Manipulates levers to dump blended coffee into elevators to get it conveyed to clearing bins or to other processing units prior to roasting.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.6500**Coffee Roaster**

Coffee Roaster; Coffee-roasting Machine Operator tends oven that roast green coffee beans. Weighs batch of coffee beans in scale-hopper, and opens chute to allow beans to flow into roasting oven; observes and adjusts controls to maintain required temperature; roasts coffee for specified time or estimates roasting time by comparing colour of beans from oven with standard sample; opens discharge gate to dump roasted beans to cool them. Stores roasted beans in airtight containers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

for powdering. May tend machine that grinds coffee.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.6600

Roaster, Cocoa-Bean

Roaster, Cocoa Bean roasts cocoa beans in heated revolving cylinders. Loads cylinders with cocoa beans and starts it. Observes roasting process and adjusts heating mechanism as necessary. Tests beans during roasting process by tasting, smelling and feeling and decides when roasting is finished. Discharges roasted beans into cooling receptacle. May operate machine in which beans are crushed and husks and chaff are separated.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.6800

Brew Master

Brew Master supervises all production activities in making beer and other malt liquor from grain. Observes and supervises operations, such as receiving, cleaning and steeping (soaking in water) of grain; germination of grain; drying of germinated grain; making of mash and extraction of wort; fermentation of wort and other processes in manufacture of malt liquors, e.g., filtration, bottling, storing of liquors. Gives specific instructions on handling of each batch; tastes liquor, giving directions as to

alteration of malt content and other composition changes, as necessary; and ensures quality and quantity of production. May place order for purchase of, or purchase of raw materials. May control stocks of barley, malt and different qualities of bear brewed and bottled. May direct repairs and alterations.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.6900

Malt Maker

Malt Maker; Germination Maker; Malt House Supervisor makes malt from barley or other grain closely supervising different processes in manufacture. Weighs and dumps grain or barley into steeping (soaking) tank by operating valve to increase or decrease supply of steam; allows it to soak for specified time, stirring it with long pole; spreads soaked grain on floor and turns it over with wooden hand plough or shovel to aerate it and cool it, sprinkling water on it, as necessary; or loads soaked grain into drums, compartments, or kilns, and lets in and controls hot air current, temperature, water sprinkling, and rotation of drum, or operation of agitators for drying sprouted grain; supervises its unloading from kiln. May keep record of temperature maintained and time taken.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7000

Masher

Masher, Cooker, Mash, Brew House Worker cooks malt with water to prepare mash and malt extract (called wort) for making distilled or malt liquors. Fills tubs, pans or cookers equipped with mechanical agitators to specified level with water and heats by steam to prescribed temperature; weighs out prescribed quantity of malt and puts it into heated water; cooks mixture while it is mechanically agitated for specified time at prescribed temperature, converting it into malt extract known as wort; transfers mixture into filtering tank using strainer for separating pulp from liquid; and pumps mash to tank, preparatory to fermenting. May cool mash preparatory to distilling, by pumping it into cooling vat equipped with coils through which cold water circulates.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7100**Fermentation Man**

Fermentation Man; Fermenting Room Man; Fermentation Worker controls fermentation process in making distilled or malt liquors or wine. Removes steam by compressed air from fermentation tanks and cools them to specified temperature by admitting cold water to pipe lines; pumps wort (liquid separated from solid part of cooked mash) or mash into fermentation tank and simultaneously admits yeast from another pipe for mixing with wort or mash; maintains solution at specified temperature during fermentation process by observing thermometer and regulating

valves of steam heating coils; makes periodic tests of specific gravity with hydrometer; adds yeast, sugar or water, as necessary; accelerates chemical reaction by admitting air through a valve; periodically removes froth formed at top of fermenting beer; removes yeast by suction or other means, and pumps fermented solution to cistern or other settling vessel; flushes tanks and pipes with cold water, sterilizes them, closes drain, and refills them, with live steam.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7200**Yeast Maker**

Yeast Maker produces yeast required in fermentation of mash used in production of distilled and malt liquors. Weighs out prescribed quantity of barley, rye or other grain meal; dumps it into measured quantity of water heated to specific temperature in special wooden vat; mixes grain and water, using agitator; cooks mixture by admitting steam into coils, in vat; cools mash by running cold water through cooling coils in vat; pours prepared yeast solution or culture into mixture and stirs with agitator; regulates temperature of fermenting mash by running hot or cold water through coils in vat; ascertains specific gravity and acid content of mash by using hydrometer and performing simple chemical tests; separates yeast from liquor by means of centrifugal separator or filter press. May draw off yeast from fermentation tanks by suction pump or by skimming.

ISCO 08 Unit Group Details:

Code 8160

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Food and Related Products
Machine Operators

8160.7300 Malt Vinegar Maker

Malt Vinegar Maker supervises all process concerned with manufacture of malt vinegar. Observes operations, such as receiving and cleaning of grain; steeping of grain in tanks filled with water; spreading of steeped grain on floor; grinding of grain; making and fermenting of mash; clarifying of fermented vinegar by filtering. Gives directions concerning temperature, rate of flow of materials and quantity of materials needed. Tastes vinegar and gives instructions as to alterations in composition of contents. May buy raw materials.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7400 Filterman

Filterman; Filtration Worker controls filtration plant to filter beer to remove sediments and impurities. Attaches pulp filter pads in filter machine; opens valve to pass beer through it; maintains correct pressure of liquor by adjusting gauges, valve; removes filter, cakes and pads and cleans in hot water for re-use; flushes equipment with hot water and sterilizes with steam.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7500 Pasteuriser, Brewery

Pasteuriser, Brewery pasteurises beer bottles and sorts out defective ones. Opens water inlet cock in pasteurisation tank containing beer bottles to fill water few inches above crowns of bottles; opens steam valves to heat water to specified temperature; checks water temperature periodically with thermometer, operating steam valve to ensure constant temperature; removes bottles showing leakage of gas due to defective crowning; opens cold water spray pipes to cool down bottles after required period; drains out water by opening outlet cock of tank after bottles have cooled down. Records pasteurisation time of each tank.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7600 Syrup Plant Operator

Syrup Plant Operator prepares sugar syrup by dissolving requisite quantity of sugar in known volume of water in steam heated pan and pumps it through filter press and chiller for filtration, cooling and onward transmission to mixing chamber. Sets volume, meter, fitted to steam heated closed pan or vessel, and opens valve to admit known volume of water in heating chamber; opens valve to let in steam into coils of heating pan; switches on stirrer; and weighs and adds required quantity of sugar to heated water. Continues heating and records temperature of sugar solution from time to time by manually dipping thermometer in it; ensures by sight that heating pan is full to specified level to form homogenous solution; changes filter

papers, if necessary and sets filter press and chiller; heats sugar solution up to prescribed temperature. Opens discharge valve of heating pan and switches on pump to force syrup (sugar solution) through filter press and chiller for onward transmission to syrup mixing chamber. Ensures proper filtration and cooling by getting samples tested, as necessary. May wash and clean heating pan, filter-press, chiller and pipe lines after preparation of each batch of syrup by passing hot water through whole system. May set steam pressure of heating chamber when necessary. May guide Syrup Mixing Plant Operator.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7700 **Syrup Maker**

Syrup Maker prepares syrups of different flavours for making sweet aerated drinks by mixing and boiling ingredients. Weighs or measures sugar or saccharine and mixes specified quantity of water; boils solution in kettle or pan to desired consistency, removing scum from top of syrup; allows syrup to cool down; filters and pours it into different pitches, or conveys syrup by means of plastic-hose to syrup room; adds and mixes requisite quantity of essences, fruit juices or other ingredients for making flavoured syrup, such as lemon, ginger, orange, rose etc. May make flavoured syrup for "sherbet" and be designated as SHERBET MAKER. May fill bottles with specified quantity of syrup. May wash and clean utensils, vessels etc. after making syrup.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7800 **Syrup Mixing Plant Operator**

Syrup Mixing Plant Operator operates syrup mixing plant for making cold drinks and aerated water. Opens valve to admit syrup up to prescribed level in mixing chamber; switches on mixing chamber agitator for adding essence, colour etc. to syrup; continues mixing for specified time and gets samples tested, if necessary; opens valves and switches on pump to admit cold water into cooler and to transfer solution from mixing chamber to bottling plant through coolers; prepares solution of weighed quantity of soda-bicarb with water, filters and mixes it with treated water in mixing chamber, and pumps it direct to bottling plant for making soda water. May wash mixing chambers with hot water after preparation of each batch of solution. May keep record of quantity of solution prepared. May keep shop floor clean and assist in periodical repairs. May mix essence, dye, etc. in mixing chamber.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.7900 **Syruper**

Syruper; Syrup Mixer, Aerated Water fills bottles with specified quantity of syrup for making sweet aerated drinks. Receives empty washed bottles, checks if properly cleaned; pushes neck of bottle to nozzle connected with syrup tank; opens valve and drains required quantity of syrup in

bottles. Passes on filled bottles to Filler for making sweet aerated drinks. May fill bottles manually from pan, vessel, pitchers containing syrup, using measures. May cook and prepare different flavours of syrup.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.8000
Bottling Plant In Charge

Bottling Plant In Charge; Bottling Plant Machinist; Bottling Plant Mistry/Operator sets, adjusts and operates washing, filling, bottling, mixing, crowning and other machines in aerated water factory or brewery. Ensures automatic and thorough washing of bottles; disconnects supply line and trial runs various machines for testing proper filling, making necessary adjustments in machines, if warranted by trial run; connects supply line for feeding purified water (in aerated water plant) or beer (in beer bottling); starts machine by operating lever, regulating air pressure to ensure uniform filling of bottles. Sets and operates various other machines, adjusting levers, gears, gauges, pressure and temperature controls for proper mixing, crowning and sorting of bottles. Co-ordinates and guides workers to maintain stipulated production, remove defects and minimise wastages; repairs, maintains and overhauls machinery and equipment. May attend to water treatment plant for purifying water. May set carbon dioxide gas purifier, carbonator plant, bottling plant and related equipment, if engaged in aerated water factory.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.8100
Bottle Washer, Machine

Bottle Washer, Machine; Washing Machine Operator operates bottle washing machine for washing empty used or dirty bottles. Arranges for collection of empty used bottles from go-down to washing machine; adds prescribed quantity of chemical to water in washing tanks, changing cleaning brushes, if required; opens and regulates steam valve to heat up tank water up to prescribed temperature; guides and watches operations to ensure good condition of brushes used, adequate pressure of spray and proper scrubbing and cleaning of bottles. May check bottles at delivery end of machine and remove damaged, defective or unclean bottles. May pull out stuck-up bottles by lifting stopper weights.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.8200
Carbonator Machine Attendant

Carbonator Machine Attendant operates carbon dioxide gas purifier cylinders and carbonator plant for passing specified volume of gas to bottle filling plant. Connects carbon dioxide cylinder with pipeline of purifying cylinders, containing potassium permanganate water, activated carbon or any other suitable material, and adjusts valve of carbonator plant; opens valve of carbon dioxide cylinder with spanner and allows gas (carbon dioxide) to pass through purifying cylinders,

carbonator plant and thence to filling machine; watches pressure gauge reading and adjusts gas valve or replaces cylinder to regulate flow of gas; sprays hot water on carbon-dioxide cylinder to vaporise liquid carbon dioxide in cylinder, if any. May feed crowns in crowning machine hopper. May act as Bottling Plant In Charge.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.8300**Filler, Aerated Water**

Filler, Aerated Water; Filling Machine Operator, Aerated Water operates automatic filling, mixing and crowning machines to fill bottles with syrup and carbonated water, fix crowns on them and mix contents. Feeds crowns in crowning machine hopper, and syrup and carbonated water in filling machine; switches on syrup and bottle filling machines, opens conveyor gate trap to allow bottles to pass first to syrup filling and then to carbonated water filling machine, preventing jamming of bottles by controlling conveyor gate trap, as necessary; switches on crowning and mixing machines and chain conveyor for crowning filled bottles and mixing their contents, tapping crowning machine hopper with mallet, if crowns get stuck up. Watches operations and readings of gas and oil pressure. Water temperature and speedometer; removes stuck-up and defective bottles; and feeds crowning machine hopper, as necessary. May be designated as CROWNING MACHINE OPERATOR, if engaged on particular type of machine.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.8400**Filler, Aerated Water, Hand Machine**

Filler, Aerated Water, Hand Machine operates manually controlled filling machine to fill carbonated water in bottles. Fills crown or marble stoppered bottles with prescribed quantity of purified water; opens lid of machine and places filled bottles in single or multi-chambers of filling machine; closes lid, opens valve to let in carbon dioxide gas from cylinders into filled bottles at particular pressure; rotates machine by hand, giving specified number of rotations to machine to obtain correct carbonation; checks up carbonation by opening lid, whenever necessary; removes carbonated water bottles from machine and hands over for crowning (sealing). May attend to repair and maintenance of machine. May be designated according to make of machine handled-CLUB MACHINE FILLER; if operates club machine for filling only carbon dioxide gas in bottles, purified water having been filled in bottles separately.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.8600**Drier and Cooler Operator, Tobacco**

Drier and Cooler Operator, Tobacco operates drying and cooling machine to dry and cool processed and shredded

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

tobacco by subjecting to hot and then to cool air. Starts driers (rotating drums) and turns valves to admit steam to heat coils of driers, or opens valves of gas burners and sets thermostat; periodically feels tobacco to determine dryness and regulates heat to dry tobacco within specified limits. Starts blower and regulates flow of air in cooling drum to cool shredded tobacco coming from drier. May feed tobacco to machine.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.8700

Cutting Machine Operator, Tobacco

Cutting Machine Operator, Tobacco; Shredding Machine Operator, Tobacco tends machine that cuts tobacco into shreds for use in making cigarettes. Sets cutting knife and adjusts machine; fills hopper of cutting machine with leaves; starts machine, causing feed rolls to revolve and knife to reciprocate; watches cutting process to ensure that machine is shredding tobacco correctly; makes minor adjustments to machine, such as tightening bolts that hold knives in place and adjusting rollers; checks cut tobacco by feeling it with fingers to ensure moisture content; draws cut tobacco from knife by hand to platform; removes/rejects such as stems, uncut leaves, and other foreign matter and pushes rest of cut tobacco to conveyor; replaces dulled knives with sharpened ones when necessary. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.8800

Cigarette Making Machine Operator

Cigarette Making Machine Operator tends automatic machine to make cigarettes. Places roll of cigarette paper on spindle; sets monogram printing device to print brand name on paper at specified position; regulates flow of shredded tobacco to insure that cigarette contains specified amount of tobacco; fills ink and glue reservoir; threads cigarette paper between guide rolls and adjust friction tension on holding spindles using wrench; starts machine and observes operation to ensure that shredded tobacco is automatically drawn and wrapped in cigarette paper, forming a continuous tube, and that tube of wrapped tobacco is cut at correct intervals into cigarettes; when making filter, cork-tipped cigarettes, places coil of tipping material on spindle and fills hopper with filters; replaces full cigarette catching trays with empty ones; reports malfunction to superiors; cleans paper scraps and waste materials from machine. May be designated according to type of cigarettes as FILTER-CIGARETTE MAKING OPERATOR.

ISCO 08 Unit Group Details:

Code 8160

Title Food and Related Products
Machine Operators

8160.8900

Stingy Cigarette Slitting Machine Operator

Stingy Cigarette Slitting Machine Operator; Defective Cigarette Slitter tends

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machine that cuts paper from defective cigarettes to reclaim tobacco. Attaches hoisting bar to tub of cigarettes; starts machine and pulls rope to hoist tub and dump cigarettes into hopper that feeds cigarettes under cutting knives and on to separator (Vibrating Screen) that separates paper from tobacco. May attend to minor repairs to machine.

ISCO 08 Unit Group Details:

Code 8160
Title Food and Related Products
Machine Operators

8160.9900 **Food and Related Products** **Machine Operators**

Food and Related Products Machine Operators, other include operators who set, operate and attend machinery used to slaughter animals, trim meat from carcasses; bake, freeze, heat, crush, mix, blend and otherwise process foodstuffs, beverages and tobacco leaves not elsewhere classified.

ISCO 08 Unit Group Details:

Code
Title

Group 817 **Wood Processing and Paper** **Making Plant Operators**

Wood Processing and Papermaking Plant Operators monitor, operate, and control automated lumber mill equipment sawing wood, cutting veneer and making plywood, and otherwise preparing wood for further use. Pulp Mill Machine Operators operate and monitor various

types of processing machinery and equipment to produce pulp.

Occupations in this Group are classified into the following Families:

8171 Pulp and Papermaking Plant Operators
8172 Wood Processing Plant Operators

Family 8171 **Pulp and Papermaking Plant** **Operators**

Pulp and Papermaking Plant Operators operate and monitor multi-function process control machinery and processing equipment to control the processing of wood, scrap pulp and other cellulose materials in the production of pulp.

8171.0100 **Chipper man, Paper Pulp**

Chipperman, Paper Pulp; Chipping Machine Operator, Paper Pulp operates machine to cut logs, wooden-blocks, bamboo etc. into small chips for making paper pulp. Selects cutting blade according to material to be chipped and mounts it on cutting head of chipping machine. Starts machine and feeds logs, blocks, pieces of stumps or other wood into hopper of chipped machine; Removes chips when container is filled. May segregate over-size or unusable wood. May inspect and change knives on machine.

ISCO 08 Unit Group Details:

Code 8171
Title Pulp and Papermaking Plant
Operators

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

8171.0200

Grinder, Paper Pulp

Grinder, Paper Pulp; Grinding Machine Operator, Paper Pulp operates power-driven grinding machine to reduce wood chips into pulp for use in making paper, adjusts distance between grinding stones in machine, loads hopper with chips, starts machine and regulates water sprays to cool grindstones and control consistency of pulp. Sets pressure of hydraulic pistons to force material between revolving stones; observes colour of flowing pulp for evidence of bans caused by dulled or broken grindstones or by jamming of material; loosens jams with hand tools and notifies supervisor of needed repairs. May be designated according to type of grinding machine used.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.0400

Sorter, Paper Pulp

Sorter, Paper Pulp sorts and picks rags, waste papers, straw, etc. to eliminate foreign and undesirable matter for making paper pulp. Spreads stock on floor; discards coloured, greasy and other undesirable material; packs acceptable material in bags. May be designated DUSTER, PAPER PULP if engaged in manually rotating conical screen for removing dust from waste material.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.0500

Cutter, Paper Pulp

Cutter, Paper Pulp cuts rags, waste paper, straw, etc. to small pieces with cutting machine for making paper pulp, appropriate cutter blade on cutting head of machine. Places material such as rags, waste paper and straw on feeder roll or conveyor belt of machine. Starts machine, examines cut material for size and adjusts or sharpens machine knives if necessary. May clean dirt and dust from dust compartment.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.0600

Liquor Maker, Paper Pulp

Liquor Maker, Paper Pulp prepares liquor for cooking paper pulp. Collects standard chemical substances such as lime and soda ash and mixes them with water in fixed proportions in vat; agitates mixture to dissolve solids and produce uniform solution; takes samples periodically to determine concentration.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.0800

Causticman, Paper Pulp/Caustisizing Operator

Causticman, Paper Pulp processes paper pulp to required viscosity by treating it with caustic acid. Opens valves to load

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

mixing tank with soda ash and milk of lime in predetermined quantities; starts agitators to dissolve and mix ingredients. Measures specific gravity and adds more ingredients or water as needed. Pipes mixture to reactor tank and continuously samples concentration to determine its viscosity.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.0900

Bleacher, Paper Pulp

Bleacher, Paper Pulp; Bleaching Machine Operator, Paper Pulp operates bleaching equipment that bleaches material, such as wood pulp, rags, straw or waste-paper pulp. Charges machine with material and bleaching solution and starts agitator; admits steam for heating mixture and regulates valves in accordance with temperature readings; observes bleaching process, notes colour of material and sends samples to laboratory for testing; transfers bleached material into washer for neutralizing it with water sprays, then to blending tank for mixing with other batches to obtain uniform quality. May add chemical during bleaching process and make chemical or electrolytic tests. May prepare bleaching solutions and be designated accordingly.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.1100

Agitator, Paper Pulp

Agitator, Paper Pulp agitates paper pulp in semi-liquid stage on sieve to spread pulp evenly. Pours semi-liquid pulp on sieve, agitates sieve containing pulp to drain off surplus water and to spread pulp evenly; picks out dirt and other foreign matter and flips partially dried pulp on to felt sheet for later pressing and drying.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.1200

Machine Operator, Paper

Machine Operator, Paper sets up and operates paper-making machine to convert wet pulp into paper or paper board. Starts flow of paper pulp from storage tank through rotary screens to machine, adding water as necessary to thin pulp; removes dirt and other foreign matter from rotary screens and regulates flow of pulp to moving wire mesh belt on which paper is formed. Co-ordinates speed of belt and flow of pulp to obtain paper of desired weight. Sets machine controls for width, thickness and moisture content of paper. Threads formed paper between press rolls to squeeze out moisture and give it shape; supervises machine crew in drying, sizing, calendering, winding and cutting paper. Adjusts, cleans, repairs and replaces machine parts. May weigh samples of paper and install Dandy Rollers to impress water mark in paper.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.1400

Wireboy, Paper

Wireboy, Paper adjusts wet felt between presses to ensure that paper is not spoilt due to faulty movement over endless wire-mesh belt. Checks flow of paper pulp on wire-mesh belt through rotary screens to machine and adjusts position of wet felt between presses so that paper is not spoiled due to faulty travel over wire mesh; examines and marks defects and informs Machine Man about malfunction; separates felt and paper after pressing.

ISCO 08 Unit Group Details:

Code 8171
Title Pulp and Papermaking Plant Operators

8171.1600

Cutter, Paper

Cutter, Paper; Guillotineman, Paper cuts paper or card-board sheets to desired size on cutting machine. Adjusts guides on scale to obtain specified length of sheet; places sheets against guide and presses lever to force knife blade through sheets. Turns stack, resets, guides and cuts sheets breadthwise. Cleans and oils machine. May be designated according to type of knife used, as GUILLOTINE CUTTER.

ISCO 08 Unit Group Details:

Code 8171
Title Pulp and Papermaking Plant Operators

8171.1700

Finisher, Paper

Finisher, Paper sorts, counts and packs paper in standard quantities. Checks and examines cut paper sheets for defects; removes defective and non-standard

sheets, counts sheets of finished paper into quires or reams, packs them in labelled wrappers; seals bundles with gummed tape.

ISCO 08 Unit Group Details:

Code 8171
Title Pulp and Papermaking Plant Operators

8171.1800

Vatman, Hand Made Paper

Vatman, Hand Made Paper; Paper Drifter dips screen into paper pulp and drains off water after pulp settles on wireframe. Fits bevelled wooden frame (deckle) on wire mesh mould; checks consistency of paper pulp in vat and adds water as necessary to thin pulp; stirs pulp with hand or wooden stick to remove dirt and foreign matter and mix pulp properly; dips mould with deckle into paper pulp; gauges amount of pulp to be lifted, with draws mould, and forms 'waterleaf' by shaking to intertwine fibres of pulp; removes deckle. May work as TRANSFERER, HAND MADE PAPER or PRESSER HAND MADE PAPER.

ISCO 08 Unit Group Details:

Code 8171
Title Pulp and Papermaking Plant Operators

8171.1900

Transferer, Hand Made Paper

Transferer, Hand Made Paper; Coucher turns over paper mould and deposits sheet of hand-made 'waterleaf' on wet felt. Removes deckle (beveled wooden frame) from pulp vat and turns over mould to deposit sheet of handmade 'waterleaf' on wet felt; piles 'waterleaf' and felts alternately to form a stack for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

pressing; forms pile. May perform duties of Vatman and Presser.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.2000

Tub-Sizer, Hand Made Paper

Tub-Sizer, Hand Made Paper dips paper in sizing solution to make it non-absorbent. Cooks ingredients (glue, starch or similar agent) in water; adds chemicals to prevent decomposition; transfers size to storage tank or tub; dips individual sheets in solution to moisten both surfaces; lays out dipped sheets for further processing.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.2100

Drier, Hand Made Paper

Drier, Hand Made Paper dries sized paper sheets. Separates sheets from compressed pack and suspends them on soft ropes or lays them out on hessian sheets to dry. Checks paper for dryness; removes and packs dried sheets.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.2200

Presser, Hand Made Paper

Presser, Hand Made Paper operates screw press manually to squeeze and remove

moisture from paper sheets. Places moist sheets, wrapped in cloth, in presser; closes press to squeeze moisture from paper.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.2400

Calenderman, Hand Made Paper

Calenderman, Hand-made Paper glazes paper by placing sheets between two zinc/iron plates and pressing them in manually operated stack of rollers. Collects dried paper sheets to be calendered; sets and arranges sheets of paper in between iron/zinc plates; inserts plates into rollers; moves handle to press paper sheets between rollers in order to glaze and smoothen them. Removes glazed paper from plates, stacks them separately. May operate electrically driven calendering machine.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.2500

Coating-Machine Operator, Hardboard (Paper Goods)

Coating-Machine Operator, Hardboard (Paper Goods) operates machine to spray paint and print surface finish on hardboard sheets: Fills hoppers of machine with ready-mixed paint. Starts machine and moves controls to regulate spraying action, specified tension of rollers, and temperature of infrared drying lamps. Tests density of paint, using

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

viscometer. May tend machine that coats unfinished insulation board with talc to prevent sticking during subsequent pressing.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

8171.9900

Pulp and Papermaking Plant Operators, Other

Paper Making Plant Operators, Other perform various routine and low skilled tasks in preparation of paper such as putting rolls of paper on cutting machine, peeling sheets of paper from each other and are designated as; Cutter Helper assists Cutter Operator by hoisting rolls of paper into Cutter rack, threading paper into machine and adjusting speed of cutter. Peeler paper assists in peeling sheets of paper from each other, etc.

ISCO 08 Unit Group Details:

Code 8171

Title Pulp and Papermaking Plant Operators

Family 8172

Wood Processing Plant Operators

Wood Processing Plant Operators monitor, operate, and control automated lumber mill equipment for sawing timber logs into rough lumber, cutting veneer, making plywood and particle board, and otherwise preparing wood for further use.

8172.0100

Wood Sawyer, Machine, General

Wood Sawyer, Machine, General sets and operates different kinds of wood sawing machine such as band saw, circular saw, crosscut saw etc. for sawing timber to required sizes. Selects and sets circular saw, band saw or cross cut saw as appropriate securely on machine ensuring proper alignment and tension, adjusts guides, steps and applies other controls to determine speed and quality of cut according to nature of wood and size of planks to be cut. Places timber or logs over machine table, using hoists, pulleys, etc. Adjusts or inserts end stops and gauges on table to desired length and width and starts machine. Pushes log against running saw along marking, removes cut wood from table and repeats process. May measure log and scantlings and calculate percentage of turnover. May sharpen saws and clean and oil machine to maintain it in working order. May specialize in any particular type of sawing machine and be designated accordingly.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.0200

Wood Sawyer, Edger

Woods Sawyer, Edger; Edger Machine Operator sets and operates multiple blade sawing machine to straighten uneven edges and cut rough wood planks into boards of required widths. Collects wood planks and determines depth of cut necessary to obtain straight edge, places the planks on edger table. Checks sharpness of saw and sets and spaces saw blades to required positions to cut plank to required dimensions. Adjusts power and speed of feeding mechanism according to thickness of plank. Starts

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

machine and pushes plank into feed rollers to carry it into saw cutters. Cuts and straightens uneven edges to shape them into planks of desired width. Checks edging and cutting of plank to ensure accuracy and quality and readjusts blades when necessary cleans and oils machine. May sharpen or replace dull saw blades. May operate other power driven wood working machine.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.0300

Band Saw Operator

Band Saw Operator operates power driven endless steel band saw to cut log beams or planks to required sizes. Selects and fits band saw of appropriate size and sharpness over pulley of machine depending on type of wood to be cut and secures it tightly by turning hand wheels of machine ensuring proper alignment and tension. Places log or timber over platform of machine using hoisting equipment or with help of workers and secures it firmly to traverser with clamps, hooks, wedges etc. Adjusts machine table, guides, stops, and other controls to ensure that band saw cuts log or clamps to required sizes. Selects speed for movement or rotation of band saw, starts machine and operates hand lever to move traverser with log against rotating saw for cutting log or plank to required sizes. Controls movement of log against rotating saw, slowing its speed when knots in wood are to be cut. Removes cut pieces from table. Cleans sticky saw dust from pulleys and band saw to remove friction and oil machine. May sharpen teeth of saw over grinding machine. May braze

joints of band saw. May operate vertical or horizontal log band mill.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.0400

Circular Saw Operator

Circular Saw Operator saws plank and lumber by power driven circular saw. Selects and fits circular saw of appropriate size (toothed disk) to spindle of machine and secures it tightly in position with nuts and bolts. Adjusts machine table to required height and sets guide setters on machine table according to size of plank to be cut. Sets cutting angle of saw if required and starts machine to rotate spindle with disk at required speed. Gets timber placed on machine table using hoist and other equipment and adjusts it against guide setter. Pushes timber along guide setter against rotating saw for cutting it and places cut pieces at one end. Cleans and oils machine. May sharpen teeth of saw manually or on grinding machine.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.0700

Veneer Cutter

Veneer Cutter; Veneer Machine Operator sets and operates rotary cutting machine for cutting wood stock into thin shaving or veneer of required sizes. Selects cutters and fits them on to rotating spindle of machine. Mounts and fastens wood stock in position on machine table. Adjusts blades in machines close to wood stock and starts machine to cut wood into thin

shavings or veneers of required size. Checks quality of shaving and veneers, ensuring that no damaged wood is processed. May fit circular saw or blades to process wood stock. May grind and sharpen tools.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.0800**Peeling Machine Operator**

Peeling Machine Operator sets and operates wood peeling machine for cutting wooden billets into veneers of required size and thickness for making match boxes, splints, plywood, etc. Selects and fits cutting required sizes of veneer and scouring of grooves on it for folding it. Adjusts and fastens billet on machine by tightening end forks of rotary lathe sets angle of cutting tool. Adjusts gap between pressure bar and knife and operates machine to remove required size of thin strips of veneer from surface of billet. Checks size of veneer to ensure required specification. Runs machine at steady speed to obtain uniform sized strips eliminating knotted and defective area of billet. Replaces blunt cutters and lancets. May clean and oil machine. May attend to running repairs of machine.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.0900**Barrel-Lathe Operator, Outside (Wood Container)**

Barrel-Lathe Operator, Outside (Wood Container) operates machine to scrape

and smooth outer surface of barrel by holding hand tools against barrel: Removes temporary hoops from barrel and places barrel horizontally on barrel rest. Starts machine. Clamps barrel between chucks of lathe. Holds barrel plane against surface of revolving barrel and guides tool along length of barrel to scrape and smooth barrel. Lifts tool from surface of barrel, releases pressure of tail chuck on barrel, and lifts barrel from machine.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.1000**Wood Chopping Machine Operator**

Wood Chopping Machine Operator sets and operates wood chopping machine for cutting veneer layers into required sizes. Adjusts machine table, guides, stops and other controls depending on size of veneer or splint to be cut. Places veneer pieces on machine table in position and adjusts it against guide setter. Starts machine and slides veneer pieces along table against end stop to cut them as required. Removes cut pieces of veneer. May clean and oil machine.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.1100**Core Laying Machine Operator**

Core Laying Machine Operator tends machine, which automatically lays face, back, and core veneer sheets in sequence and spreads glue on core sheets to form plywood panels. Starts machine, observes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

its operation, and turns wheels, valves and dials to adjust and synchronize conveyors, reach end vacuum of mechanical arms, tension on glue-spreading rollers, and to regulate flow of glue. Pushes pedal to control conveyor, which moves stacked panels to hot plate presses.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.1200

Core Layer, Plywood

Core Layer, Plywood assembles plywood panels from glue covered veneer sheets, core board and face sheets, working as member of team. Receives veneer sheets as they emerge from glue spreader and places them cross-grained in sequence on wooden core until specified thickness is obtained. Pushes trays of plywood on to conveyor or stacks plywood on hand truck. May assist in cleaning rollers of glue spreader. May brush glue on irregularly shaped veneer sheets which do not fit in glue spreader.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

8172.9900

Wood Processing Plant Operators and Related Workers, Other

Wood Processing and Papermaking Plant Operators, Other perform variety of routine and low skilled tasks such as holding lumber while sawing, feeding boards and planks against cutter, spreading glue in adjacent surfaces etc. and may be designated as Sawyer Helper,

Gluing Machine Operator, Paster, Wood Clipping Machine Operator, etc.

ISCO 08 Unit Group Details:

Code 8172

Title Wood Processing Plant Operators

Group 818

Other Stationary Plant and Machine Operators

This group includes Stationary Plant and Machine Operators not classified elsewhere in sub-major group 81, Stationary Plant and Machine Operators. The group includes, for instance, operators of machines which make silicon chips and splice cables and ropes.

Occupations in this Group are classified into the following Families:

8181	Glass and Ceramics Plant Operators
8182	Steam-Engine and Boiler Operators
8183	Packing, Bottling and Labelling Machine Operators
8189	Gem and Jewellery Machine Operators

Family 8181

Glass and Ceramics Plant Operators

Glass and Ceramics Plant Operators operate and monitor kilns, furnaces and other machinery and equipment used in the manufacture of glass, ceramics, porcelain, tiles or bricks. They operate machines to anneal, harden or decorate glass and ceramics.

8181.0100

Blowing Machine Operator (Glass)

Blowing Machine Operator (Glass) operates machine which blows objects such as bottles, jars, glass shells, of bulbs and valves from molten glass. Places parison (intermediate shape in production of glass articles) in mould of machine, closes mould and adjusts flow of lubricant to prevent glass sticking to mould; regulates flow of compressed air and molten glass into shape of mould in machine; removes shaped articles from mould, feeds them into glass grinders to remove superfluous edges. Tests and checks samples of finished articles to ensure standardization of products. May be designated according to kind of glass articles moulded such as BLOWING MACHINE OPERATOR, GLASS BULBS, etc.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.0200 **Machine Man, Sheet Glass**

Machine Man, Sheet Glass sets and operates glass-drawing machine that produces continuous sheets of window and other flat glass. Switches on heating apparatus in machine to raise temperature to level of plastic glass to prevent breakage. Adjusts and sets in position asbestos rollers in machine through which plastic glass is to pass; starts machine so that plastic glass flows in from furnace end, passes through a series of asbestos rollers on machine which roll amorphous plastic glass into sheets of required thickness; adjusts and regulates speed and position of rollers to prevent warping and breakage of glass sheets, and to obtain glass sheets of

desired thickness. Removes broken and defective portions of rolled sheets. Cleans and oils machine, and carries out running repairs. May operate machine to break glass sheet at appropriate places. May be designated as BOTTOM MACHINE MAN or TOP MACHINE MAN, SHEET GLASS according to position of duty on machine.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.0300

Pressman (Glass)

Pressman; Press Operator (Glass) operates hand press to mould glass into required shape. Sets mould in press according to size and shape of article to be produced. Shears off proper quantity of molten glass from iron rod, held by Gatherer into machine mould. Operates lever to close mould for compressing molten glass into required shape; manipulates lever to withdraw press head, takes out ware and sends it for annealing or further processing.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.0400 **Pressman (Ceramics)**

Pressman; Press Operator; Moulder Machine (Ceramics) sets and operates press machine to mould ceramic articles from moist clay. Selects and fixes appropriate die or mould in machine; oils surface of lump of kneaded moist clay to prevent its sticking to inside of mould; places clay lump in position on lower plate

of mould box; turns handle and pulls lever to operate press which compresses clay mass into shape of mould, such as tile, brick or sagger (fire clay container in which pottery is placed for fixing in kiln or oven); presses pedal to lift form to remove adhering particles to meet specification; cleans and adjusts mould fitted to machine, if necessary. May be designated according to nature of articles moulded such as SAGGAR MAKER, MACHINE or BRICK MOULDER, MACHINE; DIE PRESSER CERAMICS.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.0500 **Extruding Press Operator, Clay**

Extruding Press Operator, Clay operates extruding press to extrude moist clay in strips for further processing. Feeds moist clay into machine. Moves lever to regulate speed of warm (part of machine) which forces clay through outlet form (die). Examines texture of clay periodically and it is extruded from machine and, if required, warns other workers to change moisture content of clay before it enters press. May operate ceramics moulding, jigger or jolly machine.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.0600 **Roller Man (Glass)**

Roller Man; Belanwala (Glass) rotates roller to wind glass wire into coil used for

making bangles. Selects iron roller of size of bangles to be made; regulates furnace temperature at required level; fixes roller in furnace in position and draws glass wire over roller; turns handle to rotate at desired speed to wind glass wire into coils over roller; cuts glass when roller is full; removes roller, and takes out coil of glass wire with a hooked rod. May direct heating of furnace to desired temperature.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.0700

Pressman (Abrasive)

Pressman (Abrasive); Moulder, Hand (Abrasive wheel) operates hand press to press abrasive material into required mould for making grinding wheels, sharpening stones, sticks etc. Mixes abrasive powder and adhesive paste according to formula; sets required type of mould to machine; fills prescribed quantity of abrasive mixture into mould; rakes and levels mixture in mould using levelling devices; operates levers to start machine and press mould by closing top and bottom parts of mould with required pressure for pressing abrasive powder in mould to desired shape and size; releases lever and stops machine. Removes mould from machine and dismantles mould plates to remove moulded abrasive material; cleans mould and its parts and repeats process.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.0800

Tube and Rod Drawer (Glass)

Tube and Rod Drawer (Glass) draws glass into tubes and rods using solid iron rod or blowpipe. Collects from Bubble Maker iron rod with molten glass heated to proper temperature at its end. Sticks molten glass on iron post held by Helper, blows and transfers fibres of glass into rod of the Helper who walks with it; blows down tube to maintain air cavity to prepare tube of required thickness; continues operation until tube or rod is prepared.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1000

Polisher (Glass Mfg.)

Polisher (Glass Manufacturing; Glass Products) polishes edges or surfaces of flat glass, using polishing wheels: Pours polishing compound into hopper of automatic feeder or applies compound to polishing wheel with brush. Holds and turns glass edge or engraved or beveled surface against white (cork) polishing wheel for rough polishing. Presses glass edge, or scratched, engraved, or beveled surface against felt polishing wheel for final polishing or to remove scratches. Wipes polished area and examines glass for smoothness.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1100

Modeller, Pottery and Porcelain

Modeller, Pottery and Porcelain models pottery or porcelain ware, according to drawings, patterns, specifications or by creating own designs, for use in preparing moulds. Examines drawings or specifications; mixes plaster-of Paris or clay with water and kneads mixture to required consistency and texture; beats mixture with small flat wooden piece to make it plastic; makes models by carving plaster or clay, by shaping material on a potter's wheel or by other methods. May work from given designs or create his own designs. May specialize in modelling particular type of products such as toys, domestic or sanitary wares.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1200

Furnaceman, Glass/Furnace Operator

Furnaceman, Glass; Melter, Glass operates gas, oil, coal, coke, or electric furnace to melt ingredients such as sand, soda, potash, borax and broken glass for making required type of glass articles. Feeds or directs feeding of premixed ingredients to furnace; heats furnace and maintains temperature at correct level with aid of instrument controls or by sight; checks and ensures that melting process of ingredient in furnace pot is proceeding correctly and to required consistency; collects sample of molten glass for laboratory analysis; maintains record of batches of mixture melted; cleans melting pot periodically and examines furnace walls for worn spots and leaks. May skim surface of molten glass to remove impurities, using rake.

May specialize in operating particular type of furnace such as Melting Pot, Tank Regenerative or Recuperative tanks. May specialize in melting glass for different types of glass material such as ordinary, optical, sheet glass or for flasks.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1400

Annealer (Glass Product)

Annealer (Glass Products) tends gas or electric kiln to affix paint on glass; Ignites and regulates gas burners to heat kiln to prescribed temperature, or regulates thermostat to control temperature of electric kiln. Spreads plaster of Paris on metal trays with trowel, roller, or palette knife to form smooth, level bed for glass. Sets sections of glass on trays and positions trays in kilns, using tongs. Observes glass through peepholes in kilns to detect signs of warping, bubbling, cracking, or blistering. Removes trays after specified period of time, and stacks trays for gradual cooling and annealing in leir.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1500

Kilnman, Pottery and Porcelain

Kilnman, Pottery and Porcelain operates kiln for baking pottery and porcelain ware to proper hardness or heating glazed or decorated articles to obtain requisite shining and hard surface. Lights or supervises lighting of fires in kiln, regulates feeding of fuel and adjusts

draught to maintain proper temperature, observing temperature indicators and decides when baking is completed.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1600

Kiln Loader, Pottery and Porcelain

Kiln Loader, Pottery and Porcelain loads pottery and porcelain ware in kiln for baking and hardening. Places green pottery and porcelain wares in saggers (fire clay boxes) or in kiln furniture (refractory slabs or trays with intervening posts) ensuring that glazed surfaces do not touch each other; carries saggers into kiln and stacks them around interior in prescribed manner giving support to articles to prevent them from falling and utilising all available space inside kiln leaving enough space between individual piles of saggers for flame to circulate around them for proper and uniform heating or baking of material; closes and seals kiln doors to prevent escape of heat. May unload baked articles when kiln cools down to required temperature. May feed fuel (coal) and fire kiln.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1700

Kilnman, Brick and Tile

Kilnman, Brick and Tile; Kiln Burner; Baker (Brick and Tile) controls periodic, field or retort kilns to bake clay products, such as brick, sewer pipe, clay refractories and roofing tile to proper hardness. Checks

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

that articles for baking are sufficiently dried and hardened; directs Kiln Loaders, Brick and Tile to load articles in kiln by piling them one above other; seals kiln door with bricks and daubs brick with clay to prevent loss of heat, using trowel; opens full valves and lights gas or oil, fires using oil soaked stick or supervises its firing according to firing schedule depending upon articles to be baked. Observes thermometer and action of pyrometric cones through peepholes or removes objects from kiln with tongs and examines it to determine rate of burning; turns gas or oil valves and dampers to adjust rate of burning or baking of objects; closes fuel valves and fire-boxes, opens kiln-crown holes and installs fans to cool objects. Instructs Kiln Loaders to unload baked articles when kiln cools down to required temperature. May be designated according to type of kiln operated as DRY-KILN BURNER; FIELD-KILN BURNER; RETORT KILN-MAN or according to product-burned BRICKKILN BURNER; ROOFING TILE BURNER. May operate continuous or intermittent firing kiln.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1800

Kiln Loader, Brick and Tile

Kiln Loader, Brick and Tile loads green bricks, tiles and such other clay products in kiln for baking. Stacks products such as blocks, bricks, and roofing tile, in specified patterns in periodic kilns for burning; spaces and levels setting rings in kiln to facilitate circulation of air about products during burning; spreads sand on floor or setting rings to prevent cohesion of products during burning; lifts and

positions products on setting rings, using hoist or manually with resistance of helpers; examines products for cracks and discards defective products; closes kiln door and seals it with clay to prevent escape of heat. May unload baked articles when kiln cools down to required temperature. May feed fuel and fire kiln. May assist Kilnman in regulating draught to kiln chamber.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.1900

Bricklayer (Brick and Tile)

Bricklayer (Brick and Tile) repairs and rebuilds tunnel, periodic, and shuttle kilns used to burn tile, brick, and sewer pipe: Examines kilns after burning cycles to determine need for repair. Lays firebrick to construct casing walls, flues, feather walls, and burner wickets, using mortar, trowels, plumbobs, hammers, and brick. Spreads plastic refractories over exposed brickwork to protect against deterioration by heat. Lays brick flooring in periodic kilns.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.2000

Graduating Machine Operator (Glass)

Graduating Machine Operator (Glass); Graduator, Glass sets and operates graduating machine to scratch measurements on wax-coated glass measuring appliances or apparatus. Places

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

apparatus in position on machine; calculates gear combinations to obtain specified graduating intervals on apparatus, and sets machine accordingly; starts and operates machine to cut or scratch graduations on apparatus; stops machine and readjusts graduating intervals to ensure proper graduation.

ISCO 08 Unit Group Details:

Code 8181

Title Glass and Ceramics Plant Operators

8181.2100

Batch Mixer (Glass)

Batch Mixer; Mixingman (Glass) weighs ingredients such as sand, soda, potash, cullet (waste glass) in prescribed quantities and mixes them in revolving drum for melting into glass. Collects required ingredients such as sand, soda, potash, cullet and mixes them in prescribed quantities according to formula; dumps ingredients in revolving drum of machine using hand shovel; adds colouring ingredients to Mixer where necessary; closes lid of drum, starts machine and allows machine to rotate drum for set period for uniform mixing; collects batch samples for laboratory tests; stops machine when mixing is complete; opens lid of drum and empties contents into receptacle placed below; places batch near furnace for melting; maintains record of number and nature of batches mixed during shift; keeps surroundings clean and tidy. May oil and clean machine. May feed furnace with batch mixer.

ISCO 08 Unit Group Details:

Code 8181

Title Glass and Ceramics Plant Operators

8181.2200

Abrasive Mixer

Abrasive Mixer tends mixing machine to make abrasive compounds for use in making, grinding, polishing and buffering wheels and hones. Calculates amount of grit, clay and adhesive required according to formulas. Weighs out ingredients, dumps them into mixing machine and starts mixing machine. Feels mixture and adds water and resins until specified consistency is attained. Scoops mixed compound into oscillating sieve to screen out lumps and oversized granules. Dumps compound into barrels for further processing. Records quantities of ingredients used in each mix. May operate mixing machine for making ceramics and like products.

ISCO 08 Unit Group Details:

Code 8181

Title Glass and Ceramics Plant Operators

8181.2300

Mixing Machine Operator (Abrasive)

Mixing Machine Operator (Abrasives) mixes various ingredients according to formula in mixing machine for making abrasive mixture. Collects required ingredients from nearby bins and fills mixing bowl of machine with prescribed quantities by opening and closing valves. Starts machine to turn paddles in mixing bowl; runs machine for specified period or until ingredients are thoroughly mixed. Stops machine and drains mixture from bowl. Cleans machine using compressed air at end of shift.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.2400

Ball Mill Operator (Cement and Ceramics)

Ball Mill Operator; Ball Mill Attendant; Miller (Cement and Ceramics) operates ball mill for finally grinding clay, rock, clinker etc. into slurry (thin paste or semi-fluid mixture), powder and cement; checks that pebbles or balls, are filled in cylinder; feeds cylinder with requisite amount of material and water through opening or regulates feed and flow of water by manipulating valves of mill; adjusts air-drift when grinding rock or clinker into powder or cement to avoid jamming or choking; closes opening, starts machine and runs it for specified time ensuring grinding of material to required fineness; stops machine and tilts cylinder to remove ground material or watches delivery of slurry through delivery-end while machine is in operation. May be designated according to material ground or industry in which worked such as SLURRY MILLER (CERAMICS or CEMENT MILLER). May tend one or more grinding mills.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.2500

Pug Mill Operator (Ceramics)

Pug Mill Operator; Pug Mill Attendant (Ceramics) operates a machine (Pug mill) that mixes clay with water to knead it into

a suitable plastic condition for moulding clay or porcelain articles. Sets appropriate die to pug mill according to clay slab and round required; starts machine to regulate speed of shafts provided with helical knives to rotate in opposite direction thus press clay towards exit into granular condition which is subjected to further mixing in lower chamber; feeds cakes of filter pressed clay into mixing chamber of machine by hand or opens slide gate and valve to permit dry clay and water to flow into mixing chamber in specified proportion; examines clay for consistency as it leaves machine and regulates valves to change proportion of water to clay as required; collects pressed and cut clay slab as ejected by machine. Cleans and oils machine. May make minor repairs to machine.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.2600

Shaving Machine Operator (Abrasive)

Shaving Machine Operator (Abrasive) dresses abrasive material to required shape and size using shaving machine and traversable cutter or shaver. Selects template according to article to be finished; places abrasive article on rotating platform of machine; selects required type and size of blade according to nature of dressing desired and fits it to tool holder of movable arm of machine; starts machine to rotate wheel; adjusts the centring of abrasive article pushing by hand to correct position; lowers arm of machine fitted with shaving blade and depresses it slowly on article to trim edges and other area to desired shape and size;

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

removes shavings at frequent intervals by blowing compressed air; measures article with callipers, gauges, etc., to ensure conformity with specification; cleans machine with compressed air at end of shift. May work from blue prints.

ISCO 08 Unit Group Details:

Code 8181

Title Glass and Ceramics Plant Operators

8181.2700

Slip Maker (Ceramics)

Slip Maker (Ceramics) operates mixing machine (blunger) in which different kinds of clay is mixed into their semi-liquid form (slip) for making ceramic products. Regulates flow of materials into mixer; starts mixer and allows it to run for specified time, pumps slip over magnets to remove any iron or steel particles and through filter process to remove excess water, regulating flow by means of a valve; cleans filters and magnets with water as required; washes screens and magnets to remove foreign particles and sludge using hose. May mix clays according to formula. May undertake minor repairs to machine. May operate Ball Mill to make slurry.

ISCO 08 Unit Group Details:

Code 8181

Title Glass and Ceramics Plant Operators

8181.2800

Glaze Maker

Glaze Maker mixes, grinds, fuses and regrinds ingredients such as borax, lead, sand and lime to make glaze. Weighs out materials, dumps these into grinding mill and grinds them for specified time. Drains

out mixture, passes it through screens and heats it in kiln for prescribed period to fuse it. Regrinds fused material into fine powder and mixes it with water to form stop for use in dipping processes.

ISCO 08 Unit Group Details:

Code 8181

Title Glass and Ceramics Plant Operators

8181.2900

Edge Operator (Abrasive)

Edge Operator (Abrasive) trims and smoothens edges of abrasive wheels over grinding machine. Mounts abrasive wheel or article to spindle of machine either singly or in packs; aligns wheels and fastens article securely by tightening nuts and bolts. Selects required type of star dresser wheel; slides star dresser wheel to machine groove so that it faces emery wheel to be trimmed; starts machine by pressing electric button and sets speed of machine to rotate abrasive wheel at required speed; moves by hand dresser wheel along groove, forward and backward to trim edges of wheels at set speed; trims and smoothens edges to required specifications by stopping machine at frequent intervals and checking size and shape of material with measuring instruments; cleans article and machine with compressed air to remove dust and powder.

ISCO 08 Unit Group Details:

Code 8181

Title Glass and Ceramics Plant Operators

8181.3000

Wet Disk Operator (Abrasive)

Wet Disc Operator (Abrasive); Disc Grinder grinds and polishes sharpening stones and sticks, by hand on power operated disc grinder. Presses switch button to start disc grinding machine fitted with rotating grinding iron table; opens water tap and regulates its flow to fine jet over rotating table of machine; fills hopper with fine sand and opens its bottom plate to allow slow and steady flow of sand over rotating table; places object (sharpening stone or stick) on rotating table and applies pressure as necessary to grind and polish it to required finish. Cleans article in water and frequently checks it with measuring instruments for size, smoothness and uniformity; repeats process by increasing supply of sand and water as necessary; cleans finished article in water; washes and cleans machine with water at end of shift.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.3100

Burner Cement

Burner, Cement; Kiln Man, Cement operates cylindrical leaning kiln rotating on an inclined axis to burn slurry, (thick mixture of lime stone and other raw materials) into clinkers for manufacture of cement. Lights kiln furnace and supplies pulverised coal mixed with compressed air or high pressure air through feed pipes to burn slurry at required temperature; operates switches and controls levers at panel board at Burners platform to rotate kiln at set speed and to open supply channel of slurry into kiln and regulate flow of slurry in rotating kiln to get it calcined and burnt into cement clinker (hard mass of burnt clay and stone);

observes intensity of flame, its colour and progress of burning of moving clinker inside kiln to maintain required temperature by regulating coal and air supply; notes and records various control panel readings; regulates proper amount of feed, speed of kiln, coal blast and draught to ensure production of clinker of right quality; visits frequently different sections of rotary kiln and coal grinding mill for efficient performance; stops kiln, if any defect develops in any of its auxiliaries such as cooler, drag chain, clinker elevator, concentrator etc. May be in charge of one or more rotary kilns.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.3200

Clay Modeller

Clay Modeller moulds full-sized or scale models of products, such as automobiles, automobile parts, television sets, radios, washers, refrigerators, caskets, or boats from clay following artist's sketches or from verbal instructions: Builds rough lumber form to fit around model or centres preformed lath-covered wood frame on grid platform. Kneads clay into slots between laths so clay will adhere to frame. Moulds clay by hand to approximate shape. Pulls sheet aluminium forming tool over surface of clay to shape areas that have constant cross sections. Shapes sculptured surfaces, using various types of sculptor's tools and scrapers. Verifies uniformity and smoothness of curved surfaces with splines and sweeps. Scrapes clay from high areas and builds up and smooths low areas to attain desired shape. Cuts cardboard templates for use as guides to shape symmetrical sections.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Takes measurements from completed half of model and duplicates them on unfinished half to make both sides symmetrical. Covers bumpers, lights, door handles, and other parts with aluminium foil to simulate chrome or coloured glass.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.3300

Fibreglass-Machine Operator

Fibreglass-Machine Operator operates machine to spray melted glass fibres onto products, such as boat hulls and lawn furniture: Feeds strands of raw fibreglass into machine, monitors gauges, and moves controls to obtain specified temperature, pressure, and flow rate of molten glass through spray jets onto article to be coated. Cleans and adjusts machine, according to maintenance schedule or instructions from supervisor, using hand tools and prescribed cleaning agents.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.3400

Furnace Helper

Furnace Helper assists the Furnace Operator by performing tasks like sealing the furnace using paddle and shovel and charging the furnace with material like scrap, ore, pellets or coke. Observes gauges and manipulates controls on panel. Signals Overhead Crane Operator, or uses electric hoist, to position ladles or buckets near furnace, and moves levers to tilt furnace into pouring position. Skims

slag from molten metal, using bar, rabble or ladle. Also performs cleaning duties.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

8181.9900

Glass and Ceramics Plant Operators, Other

Glass, Ceramics and Related Plant Operators, Other include all other operators engaged in glass, ceramics and related plant operation activities not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8181
Title Glass and Ceramics Plant Operators

Family 8182

Steam-Engine and Boiler Operators

Steam Engine and Boiler Operators maintain and operate various types of steam engines, boilers, turbines and auxiliary equipment to provide power and other utility services for commercial, industrial and institutional buildings, at work sites and aboard ships or self-propelled vessels.

8182.0100

Boiler, Tindal

Boiler Tindal; Head Boiler Attendant sets automatic draught controls, guides feeding of fuel in hopper, pumping of water and all other operations in boiler house. Checks visually and by reading the meters regarding steam load and

pressure, condition of combustion in furnace, quality of fire and water feed system etc. Ensures that water level indicators are in working condition. Ascertains draught (air supply to fuel) and exhaust requirements to boilers, making necessary manual and mechanical adjustments for control and regulation. Ensures that adequate fuel is stored, exhaust temperature of flue gas (the gaseous products of combustion from boiler furnace and water vapour) remains within specified limits, feeders are uniformly filled with fuel and that all fuel is completely burnt. Checks ash contents visually or by chemical analysis or by reading carbon dioxide recorder. Ensures continuous and proper working of ash disposal system and cleaning of boiler tube ways. Conducts general supervision of other operations in boiler house to meet load demand on plant. May handle equipment in emergency.

ISCO 08 Unit Group Details:

Code 8182

Title Steam-Engine and Boiler Operators

8182.0200

Boiler, Attendant

Boiler Attendant operates boilers to generate steam of required pressure by controlling and adjusting water feed, draught, evaporation, fire, etc., for heat or power. Opens water-pipe valve in tank through glass tube attached to it and closes water-pipe when boiler tank is filled with water to required level. Ensures that water level in indicator is always above minimum limit. Opens door of fire chamber of boiler, shovels fuel into fire box and rakes fire to obtain maximum heat or sets device which feeds gas, oil or other fuel automatically. Checks temperature and pressure of steam by

reading gauges and feeds fuel or adjusts stoking accordingly. Operates different supply valves and ensures that steam is supplied to engine room at prescribed pressure. Controls air draught into boiler ensuring correct adjustment of air supply and preventing infiltration of extraneous air. Maintains water level and steam pressure as prescribed. Drains out excess water from drum by blowing down according to instructions or in presence of shift-in-charge. Undertakes cleaning of boiler tube ways and minor repairs, maintains general external cleanliness, lubricates mechanical parts of boiler and assists in commissioning, banking (reducing the rate of combustion in boiler furnace by covering fire with slack or fire coal) and shutting down boilers. Maintains prescribed records of readings in log book. May cut off automatic water feed and make direct connection to drum and blow off excess water in case of emergency. May remove ash from ash pan or slag from slag chamber. May clean boiler and flues. May operate boilers with different fuels such as gas, oils, coal and be designated accordingly.

ISCO 08 Unit Group Details:

Code 8182

Title Steam-Engine and Boiler Operators

8182.0300

Boiler, Fireman

Boiler Fireman; Fireman, Steam shovels coal into boiler to generate steam of required pressure. Lights boiler by throwing lighted cotton waste into boiler furnace and supplying air into chamber for easy combustion of coal. Shovels coal into fire chamber of boiler and spreads it evenly on surface for maximum combustion and utilisation of heat to generate steam. Pokes or rakes burning

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

coal with metal rod to drop burnt cinder and ash on floor and to break lumps of coal to ensure maximum use of coal in chamber and maintain uniform heat. Ensures that water supply to boiler is constant and at prescribed level. Checks temperature and pressure of steam by reading gauges and adjusts steam pressure by regulating feed of coal and water to boiler. Lubricates moving parts. Maintains record of supply of coal to boiler etc. May collect, carry and dump ash at control point. May use bagasse instead of coal specially in sugar factories. May clean water tubes and dismantle boiler for repairs.

ISCO 08 Unit Group Details:

Code 8182

Title Steam-Engine and Boiler Operators

8182.0400

Boiler House Operatives

Boiler House Operatives perform number of routine and low skilled tasks in operating boilers such as breaking coal to required size by hand, picking out shells and stones from coal, looking after automatic disposal of ash from boiler hopper and removing ash and cinder discharge from boiler, cleaning and scrapping off scales from boiler, operating and undertaking maintenance of boiler feed pumps, operating boiler draught fans, operating conveyors for supply of coal to storage bunkers of boilers, looking after performance of deaerator in order to remove dissolved gases from boiler feed water etc., and are designated as Coal Trimmer, Ash Mazdoor, Ash Khalasi, Boiler Khalasi, Coal Conveyor Attendant etc., according to nature of work performed.

ISCO 08 Unit Group Details:

Code 8182

Title Steam-Engine and Boiler Operators

8182.0500

Serang, Engine Room/Engine Bosun

Serang, Engine Room controls and directs work of engine room crew on board ship. Allocates duties to engine room crew; and ensures that engine room, floor plates and paint work have been properly cleaned, and spares are properly greased and stored; supervises work of Tindal, Engine Room; Stoker, Ship; assists ships' engineers in maintenance work and supervises cleaning of boilers, washing of tank tops, chipping and scrapping in engine-room etc.; maintains discipline amongst engine room crew. May perform duties of Tindal or Stoker in emergency or when required.

ISCO 08 Unit Group Details:

Code 8182

Title Steam-Engine and Boiler Operators

8182.0600

Tindal, Engine Room

Tindal, Engine Room supervises work of engine room crew under instructions from Serang, Engine-room. Assists ships' engineers in looking after satisfactory functioning of boilers; stands watch in engine-room, supervises firing of boilers and sees that water level of boilers is maintained correctly. May work with engine-room crew in cleaning boilers, paintings, chipping etc.; may assist engineers in overhauling and maintenance of machinery, engines and boilers; may perform duties of Serang in his absence.

ISCO 08 Unit Group Details:

Code 8182

Title Steam-Engine and Boiler Operators

8182.0800

Fireman, Locomotive

Fireman, Locomotive; Fireman, Railway Engine (Steam) fires and operates steam locomotive boiler by stocking coal into it to maintain required steam pressure. Checks safety plugs of fire-box, moving parts of engine and supply of water and coal before commencement of journey. Stokes coal judiciously into firebox of boiler to maintain constant fire for generating steam and keeps coal consumption within prescribed limits. Assists Engine Driver in observing signals and other instructions. Oils and cleans engine parts, fills water tank en route with water at water columns and maintains required water level in boiler. Ensures correct operation of Engine lubricator and raking of fire at waiting stations when engine takes water. Is designated as FIRST FIREMAN or SECOND FIREMAN according to degree of responsibilities and tasks performed and as FIREMAN LOCO SHED if engaged in storing prescribed quantity of coal, water etc., in engine and preparing it for journey by firing boiler to required steam pressure.

ISCO 08 Unit Group Details:

Code 8182

Title Steam-Engine and Boiler Operators

8182.9900

Ships' Engine Room Ratings, Other

Ships' Engine Room Ratings, Other include all other Ratings engaged in various operations in ship's engine room, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8182

Title Steam-Engine and Boiler Operators

Family 8183

Packing, Bottling and Labelling Machine Operators

Packing, Bottling and Labelling Machine Operators operate and monitor machines which weigh, pack and label various products, or fill different containers with products.

8183.0100

Building Insulator, Machine

Building Insulator, Machine blows and packs insulating material, such as mineral wool, shredded cork or asbestos with power driven machine into cavities between walls, floors and ceilings in buildings. Carries hose nozzle to working position. Inserts hose nozzle into openings in floors, walls or ceilings and gets blower started to release compressed air which blows insulation material through hose into them. Directs hose nozzle to distribute insulating material as specified. May insulate open spaces, such as cupboards, walls or attic, roofs by nailing sheets of insulating material to studs or rafters.

ISCO 08 Unit Group Details:

Code 8183

Title Packing, Bottling and Labelling Machine Operators

Family 8189

Gem and Jewellery Machine Operators

The Gem and Jewellery Machine Operators grind, cut, slice and polish gem stones to deliver perfect cut roughs. They

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

operate machine such as CAM Machine, Laser Sawing Machine, Casting Machine, Symmetry Analyser and Pantograph Machine etc.

8189.0100

Gem Grinder, Machine

Gem Grinder, Machine grinds precious stones to required shape and size by machine. Fixes roughly shaped stone, after sawing or cleaning, in dop (metal device to hold stone) with shellac. Fixes dop in machine spindle and positions it in centre. Places other stone in another dop and fixes it in hand-rod. Starts machine and presses hand-rod with stone against revolving stone in spindle to rough out uneven surfaces. Checks stone frequently while grinding with magnifying glass and grinds it to required shape and size. Uses different types of dop according to shape required. Is designated as DIAMOND CUTTER or DIAMOND GRINDER if engaged in grinding diamond. May use electrically operated disc type grinding wheel for grinding stones.

ISCO 08 Unit Group Details:

Code 8189

Title Stationary Plant and Machine Operators Not Elsewhere Classified

8189.0200

Gem Polisher, Machine

Gem Polisher, Machine polishes top portion and gives facets to stone. Fixes stone to be polished in dop with shellac. Sets dop in tank (wooden rectangular device to hold dop) or holds dop in special type of clamp. Starts machine, applies diamond powder to revolving steel disc and holds tank or clamp on it to press and

polish stone to required finish. Checks stone frequently with magnifying glass while polishing to ensure required finish. May wash polished stone in caustic soda solution or keep it in lemon juice for prescribed period to brighten it.

ISCO 08 Unit Group Details:

Code 8189

Title Stationary Plant and Machine Operators Not Elsewhere Classified

8189.0301

CAM Machine Operator

CAM Machine Operator interprets the three-dimensional (3D) jewellery design, feeds design parameters in the CAM machine and produces resin based prototypes. The model prototype serves as a sample for manufacturing jewellery or components.

Qualification Pack Details:

QP NOS Reference G&J/Q2404

QP NOS Name CAM Machine Operator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8189

Title Stationary Plant and Machine Operators Not Elsewhere Classified

8189.0401

Laser Sawing Machine Operator

Laser Sawing Machine Operator needs to cut the rough diamond along the marking by fixing it on a dop or cassette or holder, then slicing it using the laser machine. A Laser Sawing Operator is responsible for delivering perfect cut roughs in the stipulated time, while minimizing weight loss and breakage.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference	G&J/Q4404
QP NOS Name	Laser Sawing Machine Operator
NSQF Level	5

ISCO 08 Unit Group Details:

Code	8189
Title	Stationary Plant and Machine Operators Not Elsewhere Classified

8189.0405

Blade Sawyer

Blade Sawyer needs to cut the rough diamond along the marking by fixing it onto a dop or pot, then slicing it using the blade sawing machine. A blade Sawyer Operator is responsible for delivering perfect cut roughs in the stipulated time, while minimizing weight loss and breakage.

Qualification Pack Details:

QP NOS Reference	G&J/Q4404
QP NOS Name	Blade Sawyer
NSQF Level	5

ISCO 08 Unit Group Details:

Code	8189
Title	Stationary Plant and Machine Operators Not Elsewhere Classified

8189.0501

Casting Machine Operator

Casting Machine Operator converts wax models to jewellery pieces through investment casting process. The individual invests the flask and then operates semi to fully-automated machines to pour and regulate the flow of molten precious metal into cavities created by melted wax, to produce cast jewellery pieces on mass scale.

Qualification Pack Details:

QP NOS Reference	G&J/Q2808
QP NOS Name	Casting Machine Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8189
Title	Stationary Plant and Machine Operators Not Elsewhere Classified

8189.0601

Symmetry Analyser Machine Operator

Symmetry Analyser Machine Operator uses the symmetry analyser machine (e.g. Helium Polish, Sarin Dimension), computer and a printer to generate a report containing all the details of a diamond's cut which include crown angles, table percentage, facet angles, crown height percentage, girdle thickness percentage, pavilion depth percentage, etc. which help a polisher to check the dimensions and repair.

Qualification Pack Details:

QP NOS Reference	G&J/Q4707
QP NOS Name	Symmetry Analyser Machine Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8189
Title	Stationary Plant and Machine Operators Not Elsewhere Classified

8189.0701

Pantograph Machine Operator

Pantograph Machine Operator; Machine Engraver operates pantograph machine for engraving letters and designs on metal

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

surfaces or object with rotary cutters by copying template (pattern). Cleans object to be engraved using soap water or other cleaning substance and clamps it in position under cutting tool of machine. Fastens required type of pattern or design in position under tracing arm of machine. Adjusts length of tracing arm of machine to scale, depending on size of engraving desired on object. Starts machine and manipulates tracing arm by hand in order of sequence to draw tracing point or styles over pattern or design for simultaneous reproduction of engraving or cutting by cutting tool on object according to set scale. Stops machine when pattern is traced and fully engraved. Removes engraved piece from table and cleans surface. May do minor repairs to machine.

Qualification Pack Details:

QP NOS Reference	G&J/Q4202
QP NOS Name	Pantograph
	Machine Operator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 7313
Title Jewellery and Precision Metal Workers

Sub Division 82

Assemblers

Assemblers assemble prefabricated parts or components to form subassemblies, products and equipment, according to strictly laid down procedures. The products worked on may be moved from one worker to the next along assembly lines.

Tasks performed by workers in this sub-major group usually include: assembling

components into various types of products and equipment, according to strictly laid down procedures.

Occupations in this Sub Division are classified into the following Groups:

821 Assemblers

Group 821

Assemblers

Assemblers assemble prefabricated parts or components to form subassemblies, products and equipment, according to strictly laid down procedures. The products worked on may be moved from one worker to the next along assembly lines.

Occupations in this Group are classified into the following Families:

8211 Mechanical Machinery Assemblers
8212 Electrical and Electronic Equipment Assemblers
8219 Assemblers, Not Elsewhere Classified

Family 8211
Mechanical Machinery Assemblers

Mechanical Machinery Assemblers assemble, according to strictly laid down procedures, component parts of mechanical machinery such as engines, motor vehicles, turbines and aircraft.

8211.0100
Assembler, Workshop Machine and Equipment

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Assembler, Workshop Machines and Equipment assembles finished mechanical components to form specific unit or machine such as lathe, grinder, milling machine, pump etc. using hand tools and machines. Studies drawing or sketch for fitting and assembly details. Places different finished metal components of machines like frames, cross members, bearings, bottom and top plates, etc. on floor and assembles them together in prescribed sequence, using nuts, bolts etc. Carries out further tooling, if necessary while assembling. Fits different parts together to form complete unit or part of unit. Checks during assembly stages for accuracy of fitting and to correspond to specifications. Finishes fitting and files off edges or ends of parts where necessary using hand files, chisels etc. Tests either finished main assembly or sub assembly parts for specified performance and makes necessary adjustment to parts using hand tools. May install assembled units at site or in factories for actual running. May repair and overhaul machines.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0101 Mechanical Sub-Assembly Technician

Mechanical Sub-Assembly Technician assembles together the mechanical sub-systems. The individual at work is responsible for assembling mechanical modules from moulded, welded or forged components to produce the final mechanical sub assembly of the product.

Qualification Pack Details:

QP NOS Reference ELE/Q6304

QP NOS Name	Mechanical Sub-Assembly Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0200 Assembler Printing Machinery

Assembler, Printing Machinery assembles and fits parts of printing machinery according to maker's specifications and erection manual. Studies drawings and other specifications and consults erection manual. Examines foundation as per drawing for correct assembly and erection and gets alterations done, if necessary. Makes arrangements for proper cleaning of different parts of machine and checks them for flaws and accuracy of fit, using gauges, micrometres and other measuring instruments. Assembles parts step by step according to instructions, if necessary by further tooling using power and hand tools and checks for rigidity, proper fit and required functions. Synchronises movements of corresponding parts and adjusts them to ensure stipulated performance. Tests assembled unit for operational efficiency and makes adjustments where necessary. May drill holes, mark metal and perform other fitting operations, if necessary. May set necessary devices in assembled unit to suit customer's needs.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0300 Assembler, Textile Machinery

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Assembler, Textile Machinery assembles textile machines from finished components as member of team. Studies drawings and collects details of assembly to be made. Collects or gathers frame, structure parts, sub-assemblies etc. from stores or nearby fixed points. Erects side frames and fits cross frames and other joints. Assembles various other machine parts of components to main frame, if necessary by further tooling, using nuts, bolts, rivets, etc. in order of sequence. Ensures that stage assembly is accurate and conforms to prescribed standards. Fits up assembly parts like gear wheels, bottom rails, shaft assembly etc. as detailed. Fastens or secures various parts and components like slide arm fitting, levers, slides, cams, springs, chain pulleys, brackets etc. to position using screws, nuts, bolts, rivets and other devices. Ensures that parts assembled are set to proper level. Finishes or smoothens surfaces by scraping, filing, chiselling or even welding. Makes punch marks or marks symbols on different assembled parts for assembly of machine at site of factory. Tests performance of assembled machine by manipulating levers, gears, etc. to ensure accurate and prescribed performance. Dismantles assembled machine for packing according to markings. May erect machine at premises or factory. May overhaul and repair textile machinery. May give electrical or power supply to machine. May work on sub assembly line and assemble sub units or parts on work bench.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0400

Assembler, Refrigerator and Air Conditioning Unit

Assembler, Refrigerator and Air-Conditioning Unit assembles and installs refrigerator and air-conditioning units by connecting pipes, insulating, lagging, connecting compressor, etc. and ensures attainment of desired temperature. Assembles frame or body of refrigeration or air-conditioning equipment by tightening respective parts with nuts, bolts, rivets, hinges, etc. Insulates frame and tank with insulating material such as glass wool, cork, etc. fabricates evaporator coils to required size and shape depending on type and nature of air-conditioning unit handled. Fits various controls and accessories like expansion valve and refrigerant controls as detailed. Connects copper or iron pipes to different units of segments and charges refrigerator with gas or liquid as freezing medium. Ensures conformity with specifications and prescribed performance of assembled unit. Installs assembled unit at premises and gives power connection to unit by fitting necessary gadgets and adjusting various controls to suit required freezing or cooling temperature. May repair and overhaul air-conditioning and refrigerator equipment. May install commercial air-conditioning equipment to premises and rooms and make necessary changes to buildings to ensure air tightness.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0500

Assembler, Stationary Petrol Engine

Assembler, Stationary Petrol Engine assembles stationary petrol engine with finished components, tunes engine and tests performance. Checks condition and cleaning of various engine parts such as

crankshaft, camshaft, connecting rod, pistons, tappets, valves, valve guides, spring etc. and measures appropriate parts to assess serviceability, reconditioning or replacement as necessary. Scrapes bearings, grinds valves, files piston rings, assembles pistons with connecting rods and fits camshaft, crankshaft, fly wheel, cylinder block, piston assemblies, valves etc. according to design in order of sequence using hoisting device, stand, special tools and other implements ensuring necessary movement and clearances as specified. Sets valve timing, meshes timing wheels on cam and crankshafts and fastens cylinder head with gasket on cylinder block. Assembles and fits fuel pumps lubrication and fuel pipes, sparking plugs etc. Fits distributor according to ignition timing and makes electrical connections with battery, ignition coil, plugs cut out, etc. Fits radiator, fan pulleys, water pump, etc. Sets tappets and starts engine. Tunes engine and runs it for prescribed number of hours. May test engine horse power, solder nipples, anneal pipes etc. May suggest alterations in fittings.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0600

Assembler, Stationary Diesel

Engine

Assembler, Stationary Diesel Engine assembles stationary diesel engine from finished components, makes adjustments, sets alignments, clearances etc. and ensures stipulated performance. Places diesel engine block on jig or other fixture using hoisting equipment. Fits or assembles various parts to engine block such as crank shaft, cam shaft, main

bearing, connecting rods, timing gears pistons, fuel pump, atomiser, automatic timing mechanism, exhaust manifold suspension, etc. using spanners, wrenches, screw drivers and other special tools and devices. Collects various parts like nuts, bolts, washers etc. from nearby bins and fits or screws them to cylinder head. Checks assembled units or parts at every stage for prescribed accuracy, alignment, tolerance etc. using special tools. Records part number fitted or assembled to engine block and notes factual details or position regarding clearances, adjustments etc. made. Assembles other sub-assemblies like starter, alternator timing chain, heater assembly switch, radiator etc. Places assembled engine at central places for engine test. May conduct engine test on dynamo meter and note actual tuning conditions and make necessary adjustments. May overhaul and repair engines or other components.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0700

Assembler, Tractor

Assembler, Tractor assembles tractors and other earth moving equipment from finished components and parts. Collects or places at fixed points different component parts, sub-assemblies etc. required for assembling. Lifts by hand or by hoisting equipment different frames, (upper and lower) body and other parts. Fits parts together in set order using nuts, bolts, rivets etc. and with necessary wrenches, spanners and other special tools. Checks at every stage assembled parts for movement, performance etc. Attaches various mechanical parts such as

brakes, steering assembly, fuel system, propulsion equipment, etc. Sets required parts in machine for proper seating and alignment. Sets alignments and adjusts required clearances. Mounts engine to vehicle giving necessary engine bed mountings and tightening with nuts and bolts. tests performance of engine and other mechanical equipment at stationary position. May drive vehicles outside and test performance. May repair and overhaul engines and other equipment. Is designated as ASSEMBLER AGRICULTURAL MACHINERY if engaged in assembling chaff cutter, husking, machine, ploughing machine and such other agricultural machines. May overhaul and set atomiser for fuel spray into engine combustion chamber.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0800

Assembler, Turbine and Steam Engine

Assembler, Turbine and Steam Engine assembles turbine and steam engine from finished components by further tooling. Examines drawings and specifications. Checks parts and components to rectify faults if any and ensures accuracy. Checks alignments, scrapes bearing, examines and cleans parts, (openings) fits rotors blades, nozzles, injectors, super heaters valves, crankshaft, piston assemblies with connecting rods, steam chest covers etc. as appropriate for turbine or steam engine by further tooling as necessary. Sets glands and packing while fitting to prevent leakage of steam. Checks condenser and fits steam pipes according to drawing and insulates them by lagging to prevent loss of heat. Fits lubrication

pipes and sets them to order. Adjusts valves, clearance etc. as prescribed. Sets timing and couples the turbine with alternator or steam engine with generator. Adjusts governor, starts turbine or steam engine as appropriate and balance them for power generation. May drill holes, check and adjust boiler fittings etc. if necessary.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.0900

Assembler Loco Engines

Assembler, Loco Engine; Erector, Locomotive; Fitter Loco Erection assembles tender and local engine from finished components by further tooling according to specifications. Sets frame of locomotive at level by manipulating jack and using spirit level for correct alignment. Aligns cylinder back cover, fits guide bearer to frame and marks alignment for necessary machining. Assembles and fits slide bars of locomotives by reaming, drilling, grinding, etc., ensuring specified measurements using micrometres, callipers, etc. Aligns wheels, and gets engine and boiler lifted on frame. Fits wheels and expansion shoe according to alignment of boiler with frame. Fits ash-pan to boiler, drills saddle bolt and reams reversing screws stand of frame. Fits cab platform ejector, lubricator, injector etc. to boiler. Assemble cab with engine according to specifications. Fits side rods and other motion parts of locomotive and sends it for blow through. Couples motion parts, fits valves, front cover of cylinder and steam chest permanently. Fits operating and sanding gear and sends locomotive for testing. Rectifies erection defects

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

according to test reports and assembles tender with locomotive.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.1000

Erector, Machine and Equipment

Erector, Machines and Equipment installs, erects and changes lay out of machines and equipment in mills, factories, workshops etc. according to instructions or specifications. Studies drawings and lay out sketches of machines or equipment to be erected. Calculates available floor area in relation to dimension of machines, working space required etc. and marks areas on floor for foundations of machines. Guides construction of foundations and setting of foundation bolts and fixtures according to type of machines to be installed and allows foundations to dry up and settle for required number of days. Places base or holding device of machines through foundation bolts or on fixture one by one, using lifting equipment and aligns and levels them with spirit level. Fastens or secures machines tightly to foundation bolts or fixtures and rechecks alignment and levelling to ensure correctness. Makes adjustment if necessary and gets grouting of foundations done. Allows grouting to dry up and adjust position of different parts of machine for efficient operation. Gives necessary power supply to machine or connects machine to line shaft. May run machine and observe performance. May assemble, repair and overhaul machines. May specialize in erecting particular type of machine or equipment such as printing machine, lathe, pneumatic hammer, grinder, pumps, etc.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.1100

Assembler, Continuity

Assembler, Continuity assembles specific finished parts, needing no further tooling to form component or unit in proper sequence as member of team usually on mechanical conveyor. Sits as member of team on either side of moving conveyor or like arrangement carrying components or units for further assembly. Keeps tools and required components for assembly handy, close to conveyor line. Collects incoming part or unit from conveyor line, fits allotted component to it using hand or power tools as designed. Checks whether assembled and completed unit conforms to specified standards using simple tools, gauges, measuring instruments, etc. Places assembled unit, article or material on moving conveyor to be carried forward for further assembly or otherwise. May mark article with trademark or symbols using stampings. May keep account of work attended to or assembled. May back and label articles. May assemble domestic appliances, office equipment, commercial goods, machine parts etc. and be designated accordingly.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.1200

Assembler, Automobile

Assembler (Automobile) assembles different parts and units of automobile, installs them on frame and makes necessary connections, adjustment,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

settings etc. according to specifications. Assembles engine, gear box, front and rear axles etc. individually according to specifications and ensures their stipulated performance. Places body frames, side members, supporting frames etc. in special jigs and secures them tightly by fixing bolts and nuts to different parts. Assists Spot Welder to spot weld body frame. Fits front and rear axle to body and tightens with nuts and bolts. Collects various components and parts from sub-assembly or from nearby bins and fits them to body or chassis as appropriate. Lifts assembled engine manually or using hoisting equipment carefully, places it over engine frame of chassis and secures it in position with bolts and nuts. Fits clutch, gear box propeller shaft, etc. and makes necessary settings and adjustments. Gathers such parts like radiator, alternator, water pump, hydraulic/vacuum brakes etc. from nearby sub-assembly line and fits them to vehicle. Makes necessary adjustments, connections and alterations to fittings as directed. Checks for wheel alignment using special equipment and makes necessary adjustments to brakes. Delivers assembled vehicle to trim line for fitting of upholstery, door and window glasses, door locks and other fittings. Lubricates various moving parts of vehicle with grease or oil. May assemble only engine, gear boxes, axles, hydraulic brake system etc. in sub-assembly line and be designated accordingly.

ISCO 08 Unit Group Details:

Code 8211
Title Mechanical Machinery Assemblers

8211.1201 Vehicle Assembly Fitter

Vehicle Assembly Fitter operates a variety of machine tools to assemble mechanical and electrical components for two wheelers, four wheelers and large commercial vehicles. A Vehicle Assembly fitter is one who is skilled in operating machine tools for conducting assembly operations as per the required vehicle assembly norms. Assembly of components includes engines, transmission components, electrical and electronic circuits and components, dashboards, seating systems, wheels, doors etc. at the required locations and as per required vehicle type/batch

Qualification Pack Details:

QP NOS Reference	ASC/Q3601
QP NOS Name	Vehicle Assembly Fitter
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8211
Title Mechanical Machinery Assemblers

8211.1202 Fitter-Mechanical Assembly

Fitter-Mechanical Assembly marks out the material for the features to be produced, and then use hand tools, portable power tools, manually operated machine tools and shaping, fitting and assembly techniques appropriate to the operations being performed. The candidate will be expected to check the quality of the workpiece, using measuring equipment.

Qualification Pack Details:

QP NOS Reference	CSC/Q0304
QP NOS Name	Fitter-Mechanical Assembly
NSQF Level	3

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.1300

Assembler, Motor Cycle

Assembler (Motor Cycle); Assembler Fitter, (Motor Cycle) assembles motor cycle, auto-rickshaw, scooter, etc. from finished components, makes necessary settings and adjustment and ensures their correct performance. Keeps various assembly parts in convenient bins near work table. Assembles motor cycle or scooter engine form various parts such as piston, crank shaft, valves, tappets etc. by necessary tooling, settings and adjustments and fits it securely with bolts and nuts on machine frame ensuring correct balancing and alignment. Fits parts and components in prescribed order of sequence and assembles various units like gear mechanism, clutch, kick starter, etc. Makes necessary checks and adjustments to fittings and to assembled units at every stage using gauges, callipers and other devices and ensures that fittings conform to prescribed specifications. Gives various mechanical and electrical connections like driving chain, control cable, control levers, switches to handlebar, magneto cables, oil levels etc. to machine. Starts engine, runs it on idle test and rectifies any defects to engine, clutch, gear box etc. noticed. Rejects defective parts and replaces them with new ones. Rectifies defects indicated on road test by further settings and adjustments as necessary. Lubricates all moving parts and points with grease gun. May work on batch or line assembly and assemble various units like frame building fork assembly, wheel building, brake assembly, clutch assembly, fuel tank fitting etc. May drive motor cycle on road to test for efficiency.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

8211.1400

Assembler, Frame, Aircraft

Assembler Frame, Aircraft fits and assembles components of aircraft frame in jig. Studies drawings and selects parts according to specifications. Marks, trims, chamfers parts and assembles airframe components in jig, doing supplementary tooling where necessary. Checks alignment, assembly fits, clearance, etc. using appropriate devices and precision instruments and ensures correct setting, Secures members temporarily with fasteners or by tack holding and marks locations for rivet holes. Drills, reams and countersinks holes in members for subsequent riveting. May replace, repair and modify passenger galley and toilet structural parts. May check fuselage for structural weakness and make necessary repairs and modifications. May check pressure seal for sealing aircraft cabins from leaks. May operate drilling, grinding and other workshop machines and replace or repair airframe parts.

ISCO 08 Unit Group Details:

Code 8211

Title Mechanical Machinery Assemblers

**Family 8212
Electrical and Electronic Equipment
Assemblers**

Electrical and Electronic Equipment Assemblers assemble or modify, according

to strictly laid down procedures, components of electrical, electro-mechanical and electronic equipment.

8212.0100**Battery Assembler**

Battery Assembler assembles various components to make complete storage batteries. Assembles negative and positive plates of cell with wood or fibre separators in between each pair of plates to form cell unit. Fits assembled cell-plates in cell and covers each cell with lid. Places cell units in position in battery casing and connects them by soldering their terminals with lead rod. Fits lead caps over terminals, marks terminals with respective polarity signs and seals top of assembled battery with molten pitch. May fill assembled battery.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.0200**Assembler Dry Cell (Battery Manufacturing)**

Assembler Dry Cell (Battery Manufacturing) assembles various components to make dry cells used in flash lights, radios, telephones, etc., Obtains various components such as empty zinc containers, moulded carbon electrodes, chemical paste, card board washers, metal caps for carbon rods, etc. for making cells. Sets positive carbon rod centrally in zinc container and fills container with prescribed quantity of chemical paste with spoons. Allows paste to solidify and fits card board washer through sticking carbon road on open end

of container. Fits metal cap on carbon rod and seals container top with plaster. Slips paper covering over cell prepared. May pack dry cells in packets. May operate automatic machines to assemble dry cells.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.0300**Battery Repairer**

Battery Repairer repairs used and defective storage batteries. Checks voltage, condition of container, sealing, terminals etc. of battery and determines specific gravity of electrolyte (battery solution) with hydrometer to ascertain further serviceability. Charges electrolyte solution or brings it up to required specific gravity by addition of acid or distilled water as necessary for further service by charging, if possible. Empties all acid from used up battery, melts and removes sealing pitch with gas torch, cuts off connecting rods of cells with hacksaw and removes battery plates from container. Examines condition of cell plates, separators etc. and replaces defective parts. Reassembles battery by fitting new cell plates in position and pours hot pitch to seal cells within case. Connections cell with new lead rods and solders extreme ends with positive and negative terminals as designed. Pours appropriate quantity of requisite strength in cells to submerge battery plates and gets battery put on charge. May charge the battery on electric a charging equipment.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

8212.0400

Assembler, Electrical Accessories

Assembler, Electrical Accessories assembles mechanical parts of electrical equipment, such as light sockets, switches, terminal boards, and plugging devices: Fits together parts, such as socket bases, shafts, contact fingers, and springs, in specified sequence, using fixtures, screwdrivers, and air nut runners. Tests actions of moving parts and listens for unusual sounds to detect defective parts for faulty operation. Verifies completed assembly against pictorial drawings.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.0401

Cutting, Crimping and Connector Assembly Operator

Cutting, Crimping and Connector Assembly Operator is responsible for cutting wire or manually or using machine, crimping wire and assembling wire into the housing. The individual at work operates the cutting machine, crimping machine and manually cuts wire and completes connector assembly. The individual is also responsible for checking quality of connector assembly.

Qualification Pack Details:

QP NOS Reference ELE/Q0115

QP NOS Name Cutting, Crimping and Connector Assembly Operator

NSQF Level 3

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.0402

Electrical Assembly Operator

Electrical Assembly Operator is responsible for make electrical connections of control panel assembly. The individual at work mounts and installs and connects internal electronic modules devices and components on the control panel.

Qualification Pack Details:

QP NOS Reference ELE/Q7306

QP NOS Name Electrical Assembly Operator

NSQF Level 3

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.0500

Electric-Motor Winder

Electric Motor Winder assembles and tests electric motor and generator stators, armatures, or rotors: Inspects cores for defects and aligns laminations, using hammer and drift. Files burrs from core slots, using hand file, portable power file, and scraper. Lines slots with sheet insulation and inserts coils into slots. Cuts, strips, and bends wire leads at ends of coils, using pliers and wire scrapers. Twists leads together to connect coils. Taps coil and end windings to shape, using hammer and fibre block. Tests windings for motor-housing clearance, grounds, and short circuits, using clearance gauge, growler, spring-steel blade, telephone receiver,

insulation tester, and resistance bridge. Winds new coils on armatures, stators, or rotors of used motors and generators. May rewind defective coils.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic
Equipment Assemblers

8212.0600

Calibrator, Electrical

Calibrator, Electrical assembles parts of electrical apparatus such as coils, condensers, etc., to determine capacity for passing current. Selects electrical wire of prescribed or required resistance and makes coils of specified number of turns of length in coil winding machine. Dries coils in annealing chamber for required period. Dips coil in paraffin wax bath to make it water proof. Solders specified length of copper wire to two terminals of coil using electric soldering iron. Measures resistance capacity of coil by connecting leads of coils to meter (galvanometer). Switches on and allows current to pass through. Notes reading on meter and ensures that it remains within permissible limits. Calibrates coils to prescribed scale by soldering copper wire of varied lengths and observing readings. Fits calibrated coil to switch boxes and gives connection to contact points. May fit and assemble precision instruments.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic
Equipment Assemblers

8212.0700

Assembler Precision Instrument

Assembler Precision Instrument fits and assembles finished mechanical parts of precision instruments such as binoculars, microscope level, cameras, gauges etc. according to drawings by further tooling, if necessary. Checks finished components with micrometre, Vernier, slip gauges and other precision measuring instruments and devices and assembles them step by step in proper sequences according to drawing using spanners, screw-driver, adopters and other hand tools. Fits lenses and metal or wooden accessories like stand (tripod), holders, boxes etc. as specified. Checks whether assembled units conform to specifications, replaces faulty units or components and ensures stipulated performance and sensitivity by standard tests. May repair precision instruments. May perform minor machine operations on instrument makers' lathe or drilling machine. May be designated according to type of instrument assembled.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic
Equipment Assemblers

8212.0800

Assembly Operator (Telephone Equipment Manufacturing)

Assembly Operator (Telephone and Telegraph Equipment Manufacturing.) assembles finished components of telephones, switches, relays, etc. in order of sequence, usually working on conveyor belt system, into sub and final assemblies by soldering, screwing, painting and other minor machine operations to form complete unit. Feeds Bakelite case to conveyor belt, fixes cards to dial and puts cap line screws on key plate. Prepares, checks and fixes ringer coils, magnetizes

magnet road, assembles bell hammer and base plate, fits butter fly bracket and cradle switch, inserts plunger pastes, diagram and performs other tests to make sub-assemblies by screwing, soldering, minor machine operations and setting parts together. Assembles and links terminals, fixes ringer assembly, induction coil, condenser and dial block to base plate and wires and solders tag block. Sets tag block to base plate. Connects induction coil, condenser, ringer and dial block, wires spring combination, fits gauges, adjusts bell hammer and performs other tasks as necessary. Fixes receiver, card, etc. and makes necessary fittings, adjustments and electrical connection to form complete unit. May work at different stages of assembly.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic
Equipment Assemblers

8212.0900

Assembly Operator (Radio Manufacturing)

Assembly Operator (Radio Manufacturing.) assembles various components of radio set by fitting and soldering parts together as designed to form sub-assemblies and fits them to printed circuit board following specifications and using hand tools to make complete wireless receiving set. Collects required components or parts such as chassis, transistors, resistors, speaker, etc. and places them at convenient position on worktable. Cuts prescribed lengths of electric wires of different colours using, cutter, hand knife or blade. Solders ends of wires to marked points according to wiring diagram, using suitable electric soldering iron. Assembles

various parts of wireless receiving set in proper order to make different sub-assemblies such as transformer switches, tuning controls etc., using pliers, spanners, screw driver and other hand tools. Fits sub-assemblies securely to chassis and ensures that all nuts and bolts are and terminals of wires are properly soldered to respective points. Selects appropriate types of electronic components and fits them to circuit board or plugs fitted to chassis. Gets assembled chassis checked for correctness. Fits chassis in appropriate Fibre or Bakelite cabinet and securely holds it in position by tightening chassis bolts. Fixes various control knobs to complete receiving set. May adjust and replace defective or improperly functioning circuitry and electronics components, using hand tools and soldering irons. May test for efficiency and performance. May be designated as METAL PARTS ASSEMBLER, CHASSIS ASSEMBLER, TRANSFORMER ASSEMBLER, CABINET ASSEMBLER etc., according to the stage and nature of work done.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic
Equipment Assemblers

8212.1000

Form Layer, Cable (Telephone Equipment Manufacturing)

Form Layer, Cables (Telephone and Telegraph Equipment Mfg.) marks dimensions on cable board and fixes nails or jibs on it for making cables used in selector racks, relay sets, etc. Studies blue print and specifications of lay out of cables to be formed. Marks different lengths, bends etc. on plywood sheet cable board according to size and type of cable to be made. Drives nails or makes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

small holes and screws standard pins according to markings on cable board, following prescribed colour code and different cable connections. May assist in making cables.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.1100

Cable Maker, Rack Wiring (Telephone and Telegraph Equipment Manufacturing)

Cable Maker, Rack Wiring (Telephone Equipment Mfg.) forms insulated wire cable by hand used in telephone equipment. Studies specifications and collects insulated wires of required sizes, type and colour. Runs wires of appropriate colour through or over different points in form laid on cable board. Checks for dimension and cuts them at end points. Moulds and laces wires together with waxed twine to make cables. Puts correct tags on cable formed and passes them for inspection.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.1200

Operator, Rack Wiring (Telephone and Telegraph Equipment Manufacturing)

Operator, Rack Wiring; Wireman, Rack Wiring (Telephone and Telegraph Equipment Mfg.) assembles and wires selector racks, relay set racks etc., used in telephone exchange. Reads instruction

card and specification sheets. Assembles on rack all components such as cable brackets, tag block bracket, shelf jacks, relays, fuse panels, buzz bars etc. Mounts cables on rack and connects wires to tag block according to specified colour code. Solders contacts, squared wiring formation and ties and laces cables with waxed card using pliers, screw drivers, soldering iron etc.

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.1301

RAC Assembly Operator

RAC Assembly Operator assembles and connects together the various modules and parts of the refrigerator or air conditioner. The individual at work is responsible for assembling and wiring up of various components, modules or sub-assemblies and systems to make the complete product.

Qualification Pack Details:

QP NOS Reference ELE/Q3501

QP NOS Name RAC Assembly Operator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8212

Title Electrical and Electronic Equipment Assemblers

8212.1401

Assembly Operator-TV

TV Assembly Operator assembles various parts of the television to produce the set. Key parts may vary depending on the type

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

of television being manufactured, e.g., CRT, LCD, LED. The individual at work is responsible for fitting in the different modules of the television set into the frame using appropriate screws and connectors during the different stages of the assembly process. The individual is expected to minimise errors at every stage since the assembly line is continuously in motion

Qualification Pack Details:

QP NOS Reference	ELE/Q3502
QP NOS Name	Assembly Operator-TV
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1501

Mechanical Assembly Operator

Mechanical Assembly Operator assembles all parts of LED luminary to complete the product. The individual at work fits together different electronic, electrical and mechanical parts and connects them to make the final LED luminary as per product design.

Qualification Pack Details:

QP NOS Reference	ELE/Q9201
QP NOS Name	Mechanical Assembly Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1601

Manual Insertion Operator

Manual Insertion Operator inserts components on printed circuit board (PCB) as per the design. The individual on the job is responsible for manually fixing different electronic components, especially, in through-hole assembly of components that cannot be inserted using pick-and-place machine because of reasons such as inconsistent shape or size or hand-soldering requirement.

Qualification Pack Details:

QP NOS Reference	ELE/Q5305
QP NOS Name	Manual Insertion Operation
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1602

Through Hole Assembly Operator

Through hole assembly operator inserts electronic components for assembling the printed circuit board (PCB), as per the design, either manually or through automated machine. The individual on the job is responsible for manually fixing components using hand tools, operating and maintaining the automated insertion machine used for placing different types of components on the through-hole PCBs.

Qualification Pack Details:

QP NOS Reference	ELE/Q5101
QP NOS Name	Through Hole Assembly Operator
NSQF Level	3

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.1603

Pick and Place Assembly Operator

Pick and Place Operator operates the automated pick-and-place machine for assembling components on the printed circuit board (PCB). The individual on the job, programs, operates and maintains the automated pick-and-place machine for placing different types of components on the surface of PCBs for soldering.

Qualification Pack Details:

QP NOS Reference	ELE/Q5102
QP NOS Name	Pick and Place Assembly Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.1604

Reflow-oven Soldering Operator

Reflow-oven Soldering Operator operates the reflow-oven soldering machine to solder the components on printed circuit boards after pick-and-place assembly. The individual at work is responsible for loading, operating and maintaining the reflow-oven soldering machine.

Qualification Pack Details:

QP NOS Reference	ELE/Q5304
QP NOS Name	Reflow-oven Soldering Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.1605

Stencil Printing Operator

Also called ‘Stencil Masking Operator’ or ‘Screen Printer’, the Stencil Printing Operator uses a manual or automated stencil printer to apply solder paste on printed circuit boards (PCB). The individual at work is responsible for applying solder paste on PCBs to be assembled with SMT components for even soldering at the wave soldering or reflow oven stage.

Qualification Pack Details:

QP NOS Reference	ELE/Q5201
QP NOS Name	Stencil Printing Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.1606

Component Preparation Operator

Component Preparation Operator forms, bends and cuts the components to make them suitable for insertion on printed circuit board (PCB). The individual on the job is responsible for forming, bending and cutting the components’ extra leads, by using hand tools or machines to make them suitable for the through-hole assembly.

Qualification Pack Details:

QP NOS Reference ELE/Q5202

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Component Preparation Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.1607

Box-building Assembly Technician

Box-building Assembly Technician assembles the electronics and electro-mechanical modules and sub-assemblies in an outer box or casing to complete the products. The individual at work is responsible for completing the product assembly by fixing sub-assemblies and modules, and connecting through routing of cabling or wire harnesses.

Qualification Pack Details:

QP NOS Reference ELE/Q5306
QP NOS Name Box-building Assembly Technician
NSQF Level 3

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.1701

Wire Bonding Operator

Wire Bonding Operator is responsible for attaching the gold or metal wire to silicon die or micro-chip to lead frame or PCB. The individual at work operates the automated or semi-automated wire bonding machine to connect the die or

chip to the lead frame or PCB through a micro length metal wire.

Qualification Pack Details:

QP NOS Reference ELE/Q1702
QP NOS Name Wire Bonding Operator
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.1702

Die Bonding Operator

Die Bonding Operator is responsible for attaching the silicon die or micro-chip on a lead frame or PCB, respectively. The individual at work operates the automated pick-and-place machine to attach the silicon die or chip on a lead frame or PCB to either glue or solder them. The silicon dies, lead frames and solder are used for active components. The chip, conductive adhesive and PCB are used for LEDs.

Qualification Pack Details:

QP NOS Reference ELE/Q1701
QP NOS Name Die Bonding Operator
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.1801

Assembly Operator Capacitor

Assembly Operator operates various machines during the different steps of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

capacitor production and manufactures the final product. The individual at work is responsible for various processes such as winding, flattening, protective taping, metal spraying, welding, resin filling and baking at various stages of capacitor manufacture.

Qualification Pack Details:

QP NOS Reference	ELE/Q0113
QP NOS Name	Assembly Operator
	Capacitor

NSQF Level 4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1802

Winding Operator

Winding Operator winds film or wire on core using automated or semi-automated winding machines for manufacturing capacitors or resistors. The individual at work operates the semi-automated or programmed winding machine to wind metal-alloy wire or metallized film on to a core in the process of manufacturing a resistor or capacitor. The individual also sample checks the resistance or capacitance of the winding.

Qualification Pack Details:

QP NOS Reference	ELE/Q0101
QP NOS Name	Winding Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1803

Vacuum Plant Operator

Vacuum Plant Operator is responsible for operating the vacuum plant for metalizing film and evacuating moisture from the wound capacitor. The individual at work operates the vacuum plant to create vacuum for metalizing loaded films. The individual also runs the vacuum plant for removing moisture from wound capacitors.

Qualification Pack Details:

QP NOS Reference	ELE/Q0104
QP NOS Name	Vacuum Plant Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1804

Coating, Curing and Marking Operator

Coating, Curing and Marking Operator is responsible for spraying the capacitor with zinc or aluminium oxide or dip-coating the resistor, stabilising the capacitor or resistor through curing and marking the finished capacitor or resistor. The individual at work operates the spraying machine, curing furnace as well as stamping machine or inkjet printer.

Qualification Pack Details:

QP NOS Reference	ELE/Q0110
QP NOS Name	Coating, Curing and Marking Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Title Electrical and Electronic Equipment Assemblers

8212.1805 Masking Machine Operator

Masking Machine Operator is responsible for wrapping capacitors in Kraft-paper-tape for further processing. The individual at work sets up and operate masking machine for covering capacitors with craft paper tape for further processing.

Qualification Pack Details:

QP NOS Reference	ELE/Q0116
QP NOS Name	Masking Machine Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1806 Pressing Machine Operator

Pressing Machine Operator is responsible for making round capacitor flat, using pressing machine. The individual at work sets up and operates pressing machines to make round capacitors flat.

Qualification Pack Details:

QP NOS Reference	ELE/Q0106
QP NOS Name	Pressing Machine Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1807

Manual Soldering Technician

Manual Soldering Technician solders connecting leads and components on the capacitor coil or metal-top-assembly as per capacitor specifications. The individual at work is responsible for soldering leads and components in the process of manufacturing capacitor.

Qualification Pack Details:

QP NOS Reference	ELE/Q0105
QP NOS Name	Manual Soldering Technician
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1808 Wave Soldering Machine Operator

Wave Soldering Machine Operator operates the wave soldering machine to solder the assembled components on printed circuit board (PCB). The individual at work is responsible for setting up, operating and maintaining the wave soldering machine in order to solder the different lots of assembled PCBs as per prescribed quality standards.

Qualification Pack Details:

QP NOS Reference	ELE/Q5303
QP NOS Name	Wave Soldering Machine Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

8212.1901

Welding Operator

Welding Operator welds the copper lead wire to the resistor using welding machine. The individual is responsible for welding the electro-tinned copper lead wire to the centre of steel and cap, bonding to the resistor by welding machine.

Qualification Pack Details:

QP NOS Reference	ELE/Q0102
QP NOS Name	Welding Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1902

Silicone Painting Operator

Silicone Painting Operator applies the silicone paint to the resistor for colour coding. The individual at work is responsible for applying the silicone paint to the resistor by either automated or manual method, drying it for few hours and baking in oven to make it permanent.

Qualification Pack Details:

QP NOS Reference	ELE/Q0108
QP NOS Name	Silicone Painting Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1903

Sorting Operator

Sorting Operator sorts the resistors after production according to the ohm value and tolerance. The individual is responsible for sorting the produced resistors using automatic or semi-automatic methods according to their ohm value and tolerance into separate bins or boxes assigned with value range marked

Qualification Pack Details:

QP NOS Reference	ELE/Q0109
QP NOS Name	Sorting Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.1904

Capping Machine Operator

Capping Operator fixes the welded caps to ceramic substrate by semi-automatic or manual methods using toggle press machine or hand tools. The individual at work is responsible for cap punching by press fitting the welded caps to the ceramic rod for providing end terminals on either side for winding, which is done either manually or by semi-automated methods using toggle press machine or hand tools.

Qualification Pack Details:

QP NOS Reference	ELE/Q0107
QP NOS Name	Capping Machine Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

8212.2001

Energy Meter Assembly Operator

Energy Meter Assembly Operator is responsible for checking if the sensor is functional and enclosing the PCB in the outer case. The individual at work verifies the functioning of the sensor of the meter and attaches the assembled PCB to outer case.

Qualification Pack Details:

QP NOS Reference	ELE/Q7304
QP NOS Name	Energy Meter Assembly Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2002

PLC Assembly Operator

PLC Assembly Operator is responsible for completing the printed circuit board (PCB) and box assembly of the PLC components. The individual at work assembles the power supply and micro-controller PCBs, sends them for programming and completes the box assembly thereafter.

Qualification Pack Details:

QP NOS Reference	ELE/Q7305
QP NOS Name	PLC Assembly Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2003

UPS Assembly Operator

UPS Assembly Operator is responsible for assembling and wiring up of various components, modules or sub-assemblies and systems to make the complete product. The individual at work assembles and connects together the various modules and parts of the UPS unit.

Qualification Pack Details:

QP NOS Reference	ELE/Q7301
QP NOS Name	UPS Assembly Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2101

Final Assembly Operator-Magnetics

Final Assembly Operator-Magnetics is responsible for completing the assembly of wound coils on lamination for SMPS transformer, lighting coil or chokes. The individual at work fills the core, tapes and tests the assembly, applies varnish, marks and packs.

Qualification Pack Details:

QP NOS Reference	ELE/Q0114
QP NOS Name	Final Assembly Operator-Magnetics
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2201

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Assembly Operator–PMD and X-Ray

Assembly Operator assembles all parts and modules of a patient monitoring device (PMD) or X-Ray machine to complete the product. The individual at work fits together different electronics and electro-mechanical parts and modules and connects them to manufacture the PMD or X-Ray machine as per product design.

Qualification Pack Details:

QP NOS Reference	ELE/Q7801
QP NOS Name	Assembly Operator – PMD and X-Ray
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2202

Box Assembly Operator

Box Assembly Operator assembles all the assembled modules into the box, mould or chassis to complete the medical device. The individual at work fits and connects together all modules and sub-assemblies of the device in an outer casing or box of metal or plastic moulding to produce the final product.

Qualification Pack Details:

QP NOS Reference	ELE/Q7802
QP NOS Name	Box Assembly Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
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Title Electrical and Electronic Equipment Assemblers

8212.2301

Module Assembly Technician

Module Assembly Technician is responsible for fixing frames and junction box in the solar module. The individual at work prepares the solar module for final assembly, frames the module and fixes the junction box with cables on the rear side of the module. The individual is also responsible for connecting the tabbing wire from the module to the junction box and soldering them.

Qualification Pack Details:

QP NOS Reference	ELE/Q5802
QP NOS Name	Module Soldering Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2302

Module Soldering Operator

Module Soldering Operator is responsible for connecting solar cells by soldering to form a solar module. The individual at work connects the positive end of a solar cell to a negative end of another solar cell by soldering and repeats the process to interconnect all the required number of solar cells in an array to form the solar module.

Qualification Pack Details:

QP NOS Reference	ELE/Q5801
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NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Module Assembly Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2401

Electrical Technician

Electrical Technician is also called 'Electrical Sub-System Integrator', the Electrical Technician integrates multiple PCBs and power supply and other electrical module into the product. The individual at work integrates together modules and sub parts that form the electronic system of the product.

Qualification Pack Details:

QP NOS Reference	ELE/Q6301
QP NOS Name	Electrical Technician
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2501

Inner Layer and Pressing Operator

Inner Layer and Pressing Operator cuts the panels according to requirement, forms the inner layers of multi-layer boards pressing together to the outer layers. The individual at work shears the panels according to the desired size and thickness for all board types, and forms the inner layer of the panel by cutting, laminating, performing oxide coating and finally pressing the laminates together to form multi-layer boards.

Qualification Pack Details:

QP NOS Reference	ELE/Q2101
QP NOS Name	Inner Layer and Pressing Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2502

Drilling Operator

Drilling Operator: Also called 'Punching Operator', the Drilling Operator drills the printed circuit boards (PCB) to make holes for inserting leaded components as per the drilling specification. The individual at work is responsible for drilling the boards using machines and conducting X-Ray quality checking of the PCBs to ensure that drilling has been done according to the program, before passing it to panel plating or stores.

Qualification Pack Details:

QP NOS Reference	ELE/Q2102
QP NOS Name	Drilling Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2503

Routing Operator

Routing Operator is also called 'Punching Operator', the Drilling Operator drills the printed circuit boards (PCB) to make holes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

for inserting leaded components as per the drilling specification. The individual at work is responsible for drilling the boards using machines and conducting X-Ray quality checking of the PCBs to ensure that drilling has been done according to the program, before passing it to panel plating or stores.

Qualification Pack Details:

QP NOS Reference	ELE/Q2103
QP NOS Name	Routing Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2504

Solder Masking and Legend Printing Operator

Solder Masking and Legend Printing Operator is also called ‘Silk Screen Operator’, the Solder Masking and Legend Printing Operator is responsible for applying solder mask and printing of artwork on the printed circuit board (PCB). The individual in this job prints an epoxy-ink based solder mask using hand tools or coating machines and apply a white letter marking to indicate component placing on each side of PCB.

Qualification Pack Details:

QP NOS Reference	ELE/Q2301
QP NOS Name	Solder Masking & Legend Printing Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8212
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Title Electrical and Electronic Equipment Assemblers

8212.2601

Electronic Sub-Assembly Technician

Electronic Sub-Assembly Technician inserts various components into bare PCBs to obtain electronic sub assembly for use in strategic products. The individual at work is responsible for inserting electronic components into a PCB and soldering the components on to the board, which is then passed on to the sub assembly integration team.

Qualification Pack Details:

QP NOS Reference	ELE/Q6303
QP NOS Name	Electronic Sub-Assembly Technician
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8212
Title	Electrical and Electronic Equipment Assemblers

8212.2701

PCB Assembly Operator

PCB Assembly Operator manually inserts electronic components for assembling on printed circuit board (PCB) as per the design. The individual on the job is responsible for manually placing different types of components on the PCB as per the design requirements and then soldering them.

Qualification Pack Details:

QP NOS Reference	ELE/Q7804
QP NOS Name	PCB Assembly Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

8212.9900

Electrical and Electronic Equipment Assemblers, Other

Electronic Equipment Assemblers, Other include workers who assemble the components or parts of electronic equipment, according to strictly laid down procedures not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8212
Title Electrical and Electronic Equipment Assemblers

Family 8219

Assemblers, Not Elsewhere Classified

Assemblers not elsewhere classified assemble, according to strictly laid down procedures various products that do not include electronic, electrical, or mechanical components.

8219.0100

Assembler, Bicycle

Assembler Bicycle assembles different cycle components and parts to make complete bicycle. Keeps or stocks different components and parts such as frames, handles, pedals, mudguards, wheels, washers, nuts and bolts at convenient position near work table. Fits different parts together to form units such as handle bars with brake attachment, front fork, rear and front wheel, etc. Places cycle frame in special jigs and

fixtures and assembles different units like handle bar, fork, wheel, driving chain, mud-guards etc. using washers, nuts and bolts to form complete cycle. Examines and tests assembled units and cycle for correct alignment. Adjusts wheel nuts and screws for proper tension of driving chain, free movement of wheels, proper functioning of brakes, etc. as necessary. Tests performance of assembled cycle and makes necessary adjustments. Oils and greases important friction point. May perform duties in sub-assembly of free wheel mechanism, building and truing of cycle rims, fitting of tyres and tubes, mounting of pedal, etc. May assemble tricycles, perambulators, etc.

ISCO 08 Unit Group Details:

Code 8219
Title Assemblers Not Elsewhere Classified

8219.0200

Assembler, Sewing Machine

Assembler, Sewing Machine assembles sewing machine from finished components using jigs, fixtures, hand tools, gauges etc. Collects finished components from stores and sets them in order of fitting. Assembles different units according to drawing or instructions using jigs, fixtures etc. as necessary. Fits assembled units and other components such as Crankshaft, Oscillating rock shaft, feed rockers, needle bar, lifter, bobbing housing driving wheel, handle etc. on body frame with bolts, nuts, screws etc. in order of sequence using hand tools, jigs, fixtures and other devices by further tolling if necessary. Checks alignments and makes necessary adjustments to ensure free and easy working of each part. Fixes shuttle race, needle plate, slide plate bobbing winder, etc. and gives finishing

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

touches. Mounts completed unit on wooden base or stand according to type of machine assembled. Sets wound bobbin, fixes needle and threads it. Tests assembled machine by trial stitching and ensure desired performance by further adjustments if required. Cleans machine and oils moving parts. May assemble specific parts in order of sequence and be designated accordingly if engaged in mass production establishments.

ISCO 08 Unit Group Details:

Code 8219
Title Assemblers Not Elsewhere
Classified

8219.0300

Assembler (Plastic Product)

Assembler (Plastic Product) performs any combination of tasks involved in assembly of plastic articles, such as bags, baby pants, coolers, fibreglass chairs, containers, trays and inflatable toys. Marks cutting lines on plastic sheet of sections to be assembled, following template. Cuts sections from sheet, using knife, scissors, or power cutting machine. Positions sections on jig and aligns seams and air valves. Brushes glue along edges of section, seals edges with hot iron or electric-sealing machine, and trims edges with scissors. Examines articles for defects, such as smeared paint, cuts, and wrinkled seams. Fills inflatable article with air and submerges it in water to detect leaks. Positions plastic patch over leak and fuses it to article, using electric sealing machine. Cleans markings and dirt from article with solvent, folds article, and places it in bag for shipment. Heats cooler brackets, using hot plate, and secures cooler, using bench fixture. Presses bracket into depressed section of cooler to attach bracket. May record number of

articles packed. May sort plastic sheets in bins. May seal decorative pieces of adhesive-backed cloth on garment parts, using automatic heat sealer.

ISCO 08 Unit Group Details:

Code 8219
Title Assemblers Not Elsewhere
Classified

8219.0400

Assembler, Metal Furniture

Assembler, Metal Furniture performs any combination of the following tasks to assemble metal furniture. Drills holes in parts, such as backrests, covers, and seats, using power drill and template. Fits parts together and fastens them temporarily with clamps and presses. Bolts, staples, or screws parts together, using hand tools, such as pliers, wrenches, pneumatic screwdrivers, and staplers. Rivets parts together, using hand or pneumatic hammer. Inserts such parts as casters and scuff plates into holes or slots. Bends fastening devices and fits interlocking parts together with hammer or rubber mallet or by striking parts against floor or workbench. Applies cement to cushions and covers, using brush or spray gun, and joins parts by hand. Pulls and fastens drawstrings, wires, or springs to join pre-cut upholstery covers to arm-rests, seats, and other parts, using hand tools. Inserts drawers into slides and adjusts slides to fit drawer surfaces. Packs furniture for shipment. May bend metal parts, using bending machines.

ISCO 08 Unit Group Details:

Code 8219
Title Assemblers Not Elsewhere
Classified

8219.9900

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Paper Board, Textile and Related Products Assemblers, Other

Paperboard, Textile and Related Products Assemblers, Other include workers who assemble the components or parts made from paperboard, textile, leather and related materials, of various types of products, according to strictly laid down procedures not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8219

Title Assemblers Not Elsewhere Classified

Sub Division 83 Drivers and Mobile Plant Operators

Drivers and Mobile Plant Operators drive and tend trains and motor vehicles, or drive, operate and monitor industrial and agricultural machinery and equipment, or execute deck duties on board ship and other water-borne craft.

Tasks performed by workers in this sub-major group usually include: driving and tending trains and motor vehicles; driving, operating and monitoring mobile industrial and agricultural machinery and equipment; carrying out deck duties on board ship and other water-borne craft.

Occupations in this Sub Division are classified into the following Groups:

831 Locomotive Engine Drivers and Related Workers
832 Car, Van and Motorcycle Drivers
833 Heavy Truck and Bus Drivers
834 Mobile Plant Operators
835 Ships' Deck Crews and Related Workers

Group 831 Locomotive Engine Drivers and Related Workers

Locomotive engine Drivers and Related Workers drive, or assist in driving, locomotive engines to transport passengers and freight, take charge of and safeguard railway freight trains during runs, control the movement of railway traffic by operating signals, switch rolling stock and clean trains in railway yards, prepare trains for hauling in mines and control their movement.

Occupations in this Group are classified into the following Families:

8311 Locomotive Engine Drivers
8312 Railway Braker, Signal and Switch Operators

Family 8311 Locomotive Engine Drivers

Locomotive-Engine Drivers drive, or assist in driving, locomotive engines to transport passengers and freight.

8311.0100 Loco Driver, Mines

Loco Driver, Mines operates electric or diesel loco-engine to haul empty and loaded cars or tubs in mines on narrow and winding tracks. Receives instructions on haulage destination of material. Checks engine equipment, audible signals, head lights, warning bell or whistle, accumulator charge, etc. and ensures that adequate quantity of sand is stored in sand chamber for releasing on track to have adequate grip. Ensures that cars or tubs are coupled up together and linked

securely to engine to prevent tipping. Manipulates control levers and pedals to start, operates and stops loco engine as needed. Lubricates and makes minor repairs to locomotive. May operate track switch and couple and uncouple cars and locomotive.

ISCO 08 Unit Group Details:

Code 8311
Title Locomotive Engine Drivers

8311.0200 Driver, Railway Engine (Steam)

Driver, Railway Engine (Steam) drives steam engine of railway train on rail routes for transporting passengers and goods. Takes charge of engine from Loco Shunter. Examines various parts of engine for operational efficiency, drives engine from loco-shed to station yard and attaches it to train. Ensures that first coupling is properly fitted and all gauges and meters are working properly. Opens steam cock of vacuum ejector to create vacuum and receives token or line clear from Station Master. Whistles when station signals become green or lowered to indicate readiness of engine to start. Starts train on receiving signal from Railway Guard. Drives engine along scheduled route at scheduled timings regulating speed according to restrictions and cautions on railway. Exchanges signals with Guard at each station after start to ensure his presence in train. Supervises and checks work of Fireman. Checks essential parts of engine, oils them after along runs, ensures that engine contains sufficient coal and water and recoups deficiency at working. Drives engine to loco-shed on completion of journey. Fills up necessary forms, detailing major

defects or required repairs and hands over engine to Loco Shunter.

ISCO 08 Unit Group Details:

Code 8311
Title Locomotive Engine Drivers

8311.0300 Driver, Railway Engine, (Diesel)

Driver, Railway Engine (Diesel) drives diesel engine of railway train transporting passengers and goods. Takes charge of engine from Loco Shunter after examining various parts of engine for operational efficiency. Ensures that engine contains sufficient diesel and drives engine from loco-shed to traffic yard or station for attaching it to train with which booked. Receives token for movement from Station Master and starts train on receiving signal from Train Guard. Drives engine along scheduled route, regulating speed according to restrictions and clearance of track and keeps to scheduled timings. Exchanges signals with Train Guard en-route to maintain mutual contact. Supervises work of Cleaner and checks operation of engine by observing readings of different gauges and instruments. Drives engine to loco-shed on completion of journey, fills up necessary forms detailing required repairs and hands over engine to Loco Foreman or Loco-Shunter. Conducts running repairs in emergent cases. May also drive loco engine (steam), or petrol driven rail car.

ISCO 08 Unit Group Details:

Code 8311
Title Locomotive Engine Drivers

8311.0400 Driver, Railway Engine (Electrical)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Driver, Railway Engine (Electric) drives electrically propelled railway engine on scheduled rail routes for transporting passengers and goods. Takes charge of engine from Loco Shunter after examining various parts of engine for operational efficiency. Drives engine from loco-shed to railway station and ensures proper coupling. Receives line clear token and signal from Station Master and switches on engine on receiving green signal from Guard of train. Drives engine along scheduled routes, regulating speed according to restrictions and cautions on railway track. Maintains arrival and departure of train at stations to scheduled timings. Exchanges signals with Guard after every start of train to ensure his presence in train and supervises work of assistants in engine. Drives engine to loco-shed on completion of journey, fills up necessary forms, detailing required repairs and hands over charge to Loco Shunter. May attend to running repairs of mechanical and electrical defects in engine, en-route.

ISCO 08 Unit Group Details:

Code 8311
Title Locomotive Engine Drivers

8311.0500

Driver, Shunting (Loco)

Driver, Shunting (Loco); Loco Shunter drives loco engine on rail tracks within traffic yard for formation of and breaking up of passenger and goods trains under direction of Yard Master. Takes charge of engine after checking up various parts of engine for operational efficiency. Obtains instructions from Yard Master for breaking up and formation of trains. Drives engine according to hand or yard signals from Signalman, Rly. Points Worker, Railway and Pointsman, Railway,

and couples it to coaches, goods or empty waggons for placing them at required places and formation of trains. May work light train in case of emergency. May attend to minor repairs of engine and supervise work of crews in engine. May drive diesel railway engine or electric railway engine for shunting.

ISCO 08 Unit Group Details:

Code 8311
Title Locomotive Engine Drivers

8311.0601

Locomotive Driver

Locomotive Driver operates the locomotive to ensure movement of raw materials, intermediates, finished products within the plant. It includes maintaining log book for performance parameters and working condition of locomotive.

Qualification Pack Details:

QP NOS Reference ISC/Q0006
QP NOS Name Locomotive Driver
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8311
Title Locomotive Engine Drivers

Family 8312

Railway Braker, Signal and Switch Operators

Railway Brakers, Signallers and Shunters take charge of and safeguard railway freight trains during runs, control the movement of railway traffic by operating signals, switch rolling stock and clean trains in railway yards, prepare trains for

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

hauling in mines and control their movement.

8312.0100 Signalman, Railway

Signalman, Railway; Cabinman controls flow of railway traffic over section of line within his jurisdiction by operating signals recorded on the control graph and setting of points from control tower or cabin under instructions from Station Master. Receives and transmits information about train's movement by bell signal or telephone after exchanging secret numbers from train dispatcher or station master at Railway Station. Operates lever on which slot is transferred by train dispatcher. Controls movement of shunting traffic within railway yards by setting points and lowering signals when signalled by shunting worker and Pilot Worker. Adjusts distant signals by slackening signals wires at night and tightening them in morning by adjusting screws and reports defects to senior officers. Signals trains at night when visibility is poor using hand lamp, fixing fog signals on railway line at fixed distances to restrict speed or to stop train in emergency during day or night when signals are off or to allow train to proceed further. Maintains contact with station master through telephone and provides information about traffic movement on lines within his jurisdiction. Keeps contact with shunting worker through hand signals for proper shunting operations. Cleans and oils levers to keep them in perfect, order. May control opening and closing of gates at level crossings; may light signal lights at night at small railway stations.

ISCO 08 Unit Group Details:

Code 8312

Title Railway Braker, Signal and Switch Operators

8312.0200 Shunting Worker

Shunting Worker; Pilot Worker; Points Worker (Railway) supervises work of Pointsman Railway operation of points and setting of railway lines in non-interlock yard and guides movement of shunting engine in railway yard for attaching to or detaching waggons and carriages from trains. Receives directions from Station Master or Yard Master regarding shunting of trains in yard or movement of waggons, carriages in yard from one place to another. Informs cabinman and pointsman concerned about shunting plan; directs shunting engine driver using hand flag lamp etc. for movements of engine when points are set to form trains. Supervises setting of lines and completes coupling and uncoupling of carriages and waggons within prescribed time. May couple or uncouple waggons and carriages in absence of Pointsman.

ISCO 08 Unit Group Details:

Code 8312

Title Railway Braker, Signal and Switch Operators

8312.0300 Points Man, Railway

Pointsman, Railway operates hand points for setting railway lines under instructions of Points Worker or Station Master in non-interlock and non-signal lines for shunting and arrival and departure of trains. Sets points under instructions from Station Master or Points Worker. Locks facing-points in non-interlock yards or non-signal lines for safeguard against derailment of

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

train; signals trains using hand flag or light to proceed in right direction. Ensures that other connected lines are clear of obstruction and brake of stationery train is away from fowling mark (a mark indicating the minimum distance required between two lines). May couple and uncouple waggons and coaches during shunting of trains.

ISCO 08 Unit Group Details:

Code 8312

Title Railway Braker, Signal and Switch Operators

8312.0400

Traffic Shunter, Railway

Traffic-Shunter, Railway marshals goods and passenger trains in station yard according to instructions received. Receives instructions from Yard Foreman regarding formation of train, attaching or detaching coaches and waggons to and from trains, shifting empty or through coaches and waggons on sidings etc. Sets lines according to plan and signals Loco Shunter to proceed towards directions indicated. Attaches coaches or waggons by screwing hooks for tightness or unscrews hooks for breaking or rearranging train or detaching engine, as required.

ISCO 08 Unit Group Details:

Code 8312

Title Railway Braker, Signal and Switch Operators

8312.0500

Braker, Passenger Train

Braker, Passenger Train performs any combination of following duties on passenger train: Inspects equipment, such as couplings, air hose, journal boxes, and

handbrakes, to ensure that they function properly. Assists passengers to board and leave train. Places passengers' baggage in rack above seats on train. Answers questions from passengers concerning train rules, station, and timetable information. Turns knobs and pushes switches on control panel to regulate air-conditioning, heating, and lighting on train for comfort of passengers. Sets warning signals, such as flares, flags, lanterns, or torpedoes, in front of and at rear of train during emergency stops to warn oncoming trains. Makes minor repairs to couplings, air hoses, and journal boxes, using hand tools. Reports to Guard, Passenger Train if any equipment requiring major repair.

ISCO 08 Unit Group Details:

Code 8312

Title Railway Braker, Signal and Switch Operators

8312.9900

Pointsmen, Signalmen and Shunters, Railways, Other

Pointsmen, Signalmen and Shunters Railways, Other include all other workers engaged in setting lines, signalling and shutting railway coaches, engines etc., not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8312

Title Railway Braker, Signal and Switch Operators

Group 832

Car, Van and Motorcycle Drivers

Car, Van and Motorcycle Drivers drive and tend motor cycles, motorized tricycles,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

cars or vans to transport passengers, materials or goods.

Occupations in this Group are classified into the following Families:

8321 Motorcycle Drivers

8322 Car, Taxi and Van Drivers

Family 8321 Motorcycle Drivers

Motor-Cycle Drivers drive and tend motor cycles or motorised tricycles equipped to transport materials, goods or passengers.

8321.0101 Driver Auto Rickshaw

Driver, Auto Rickshaw; Driver, Motor Cycle Rickshaw drives auto rickshaw on hire or as paid employee for transporting men and material, observing traffic rules and signals. Cleans and washes vehicle and does running repairs. May maintain book of journey.

Qualification Pack Details:

QP NOS Reference	ASC/Q9713
QP NOS Name	Auto Rickshaw
	Driver
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8321
Title	Motorcycle Drivers

8321.0200 Despatch Rider

Despatch Rider delivers urgent messages, telegrams and important communications to addressees, riding auto or motor cycle, bicycle, etc. Receives urgent official

messages, telegraphic or otherwise, from authorities for quick delivery to addressees. Keeps messages, telegrams for records in bag for security and carries them riding motor cycle, auto cycle, etc. according to road condition for delivery. Obtains receipt of delivery on peon book. May deliver dak in villages, riding on cycle or horse.

ISCO 08 Unit Group Details:

Code	8321
Title	Motorcycle Drivers

8321.0201 Delivery Associate/Two Wheeler Delivery Associate

Delivery Associate; Two wheeler delivery associate also is called as pizza boy/courier boy based on the goods he delivers or a dispatch rider. Individuals at this job need to safely and quickly deliver the goods to the intended customers using two wheelers as mode of transport

Qualification Pack Details:

QP NOS Reference	ASC/Q9710
QP NOS Name	Two Wheeler
	Delivery Associate
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8321
Title	Motorcycle Drivers

8321.9900 Motorcycle Drivers, Other

Motorcycle Drivers, Other include drivers who drive and tend motor cycles or motorised tricycles equipped to transport materials, goods and passengers not elsewhere classified.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 8321
Title Motorcycle Drivers

Title Car, Taxi and Van Drivers

Family 8322

Car, Taxi and Van Drivers

Car, taxi and van drivers drive and tend motor cars and vans to transport passengers, mail or goods.

8322.0100

Driver, Car

Driver, Car, Chauffeur drives motor car according to owner's requirement as paid employee. Observes road signals and traffic rules. Attends to minor repairs. May wash and polish car and maintain log book for journey. May also do odd jobs and run office or house-hold errands.

8322.0102

Chauffer, Cab Driver

Chauffer needs to drive for long and awkward hours and unpredictable schedules. Individual must be polite and dependable with the ability to remain calm and composed under stressful conditions of traffic and demanding customers.

Qualification Pack Details:

QP NOS Reference ASC/Q9712
QP NOS Name Chauffer Level 4
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8322
Title Car, Taxi and Van Drivers

8322.0201

Driver, Taxi

Driver, Taxi Car drives motor car, observing road signals and traffic rules, to transport passengers from one place to another on hire, based on length of travel or as recorded in meter. Loads and unloads baggage when necessary and attends to minor repairs. Maintains account and renders it to owner, if necessary.

Qualification Pack Details:

QP NOS Reference ASC/Q9705
QP NOS Name Taxi Driver
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8322
Title Car, Taxi and Van Drivers

8322.0301

ISCO 08 Unit Group Details:

Code 8322

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Driver, Ambulance

Driver, Ambulance drives ambulance to transport sick, injured, or convalescent persons. Assists in placing patient on stretcher in ambulance; adjusts stretcher in secure position; takes sick or injured persons to hospital or to destination; exercises care in driving ambulance to avoid sudden motions, detrimental to patients; changes soiled linen on stretcher; administers first aid; maintains log-book of journeys performed. May shackle violent patients.

Qualification Pack Details:

QP NOS Reference	ASC/Q9706
QP NOS Name	Ambulance Driver
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8322
Title	Car, Taxi and Van Drivers

8322.0501

Light Motor Vehicle Driver

Light Motor Vehicle Driver or simply Driver. needs to drive safely on the assigned route with or without Company of a senior driver and will be in employment/or hired for a duration. This is also applicable to drivers commercially working in the employment of a car owner or commercial drivers' pool. Individual needs to have a valid LMV Learners driving Licence or LMV driving licence.

Qualification Pack Details:

QP NOS Reference	ASC/Q9702
QP NOS Name	Light Motor Vehicle
NSQF Level	3

ISCO 08 Unit Group Details:

Code	8322
Title	Car, Taxi and Van Drivers

8322.9900

Car, Taxi and Van Drivers, Other

Car, Taxi and Van Drivers, Other include drivers who drive and tend motor cars and vans to transport passengers, mail or goods not elsewhere classified.

ISCO 08 Unit Group Details:

Code	8322
Title	Car, Taxi and Van Drivers

Group 833

Heavy Truck and Bus Drivers

Heavy Truck and Bus Drivers drive and tend heavy trucks, Lorries, buses or street tramcars to transport goods, liquids, heavy materials, mail or passengers.

Occupations in this Group are classified into the following Families:

8331 Bus and Tram Drivers

8332 Heavy Truck and Lorry Drivers

Family 8331

Bus and Tram Drivers

Bus and tram drivers drive and tend buses or street tramcars to transport passengers, mail or goods.

8331.0100

Tram Car Driver

Tram Car Driver drives electric tram cars on scheduled routes in cities for transporting passengers to different

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

localities. Checks before start that tram is in perfect running condition and all requisite material such as sidelights, tail lamp, gong, first aid box, etc. are provided in it; starts tram at scheduled time under directions or signal from Depot Starter, Tram; controls movement of tram in response to traffic signals, and signals given by Tram Conductor; studies running time schedules and adjusts movement of tram i.e. arrival and departure at specific places, accordingly, or acts under instructions from Traffic Regulator, Tram assists passengers in emergency; directs Poleman, Tram to connect tram car pole with overhead electric line in required direction, keeps simple record of defects noticed in tram or in track. May collect fares and issue tickets in small tram or in absence of Tram Conductor.

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

8331.0200

Trolley Driver

Trolley Driver drives electrically or mechanically operated trolleys on rails for carrying material within or outside mills, factories or industrial areas; operates electrically or mechanically driven trolley to haul raw material, finished products, fuel and other material from one place to another within mills, factory, etc.; takes necessary precaution and restricts speed while driving within production centre as safeguard against hazards.

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

8331.0300

Driver, Bus

Driver, Bus drives bus to transport passengers from one place to another either over long distance or in urban area. Checks fuel, oil, water, lights, brakes, destination board, etc. Ensures that vehicle is provided with tools and documents required under Motor Vehicle Act, such as registration book, road permit, complaint book, first aid box etc., before commencing run. Drives bus according to time schedule on prescribed route observing road signals and traffic rules. Starts and stops according to signals from Bus Conductor to pick up and drop passengers at recognised stops or on request.

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

8331.0301

Commercial Vehicle Driver

Commercial Vehicle Driver needs to drive safely on the assigned route. Individual needs to have a valid HMV driving Licence and PSV badge. Individual is expected to Drive a commercial vehicle including LCV, pickup trucks, bus, maxi cab, school van, transport vehicles and ensuring safety of passengers/goods as well as public on the road. This role requires the individual to possess relevant technical skills to handle most of the routine break downs that could likely be encountered while driving long distances and through difficult terrains. The individual is also expected to achieve other key performance parameters like fuel efficiency and on time delivery etc.

Qualification Pack Details:

QP NOS Reference ASC/Q9703

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

QP NOS Name	Commercial Vehicle
	Driver-Level 4
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

8331.0302

Commercial Vehicle Driver-Assistant

Commercial Vehicle Driver-Assistant, Tempo Driver, Bus Driver or simply Driver. Individuals at this job need to drive safely on the assigned route with or without company of a senior driver. Individual needs to have a valid HMV driving Licence and PSV badge. Individual is expected to drive a commercial vehicle including LCV, pick-up trucks, bus, maxi cab, school van, heavy commercial vehicles (within city limits or in company of senior driver on long routes) and ensuring safety of passengers/goods as well as public on the road. The individual is also expected to achieve other key performance parameters like fuel efficiency, on time delivery etc.

Qualification Pack Details:

QP NOS Reference	ASC/Q9702
QP NOS Name	Commercial Vehicle
	Driver-Level 3

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

8331.0400

Driver, Fire Brigade Vehicles

Driver, Fire Brigade Vehicle drives heavy motor vehicle equipped with firefighting

material for fighting fires or other rescue operations. Keeps fire brigade vehicle ready, duly equipped with material, to proceed to requisite site instantly; drives speedily, on receipt of instructions from Control Room to affected site following shortest route and sounding alarm; assists fire fighters in fixing ladders, connecting hoses etc. May ignore traffic signals to save time.

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

8331.0500

Driver Road Test

Driver, Road Test; Test Driver; Vehicle Tester (Automobile) drives completed or experimental automotive vehicles under test conditions to detect mechanical and structural defects and to determine repairs required. Examines automobile, truck or bus before road testing to ensure that all equipment, such as electrical wiring, hydraulic lines and fan belt are installed as specified, and verifies that vehicle has been serviced with oil, gas and water; starts engine and listens for sounds indicative of malfunctions of part or parts; drives vehicles over test tracks, city streets or highways, noting performance of clutch, gears, brakes and other parts of vehicle; tests motor tuning, cylinder compression, fuel consumption, wheel alignments, steering, horns, heater, wiper and power windows using testing devices; reports finding to supervisor or customer and recommends repair required. May examine disassembled engine, differential, or other parts during repair.

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

8331.0501

Test Driver

Test Driver is responsible for conducting various types of outdoor tests on automobile prototype in a simulated on road test environment and actual conditions to ensure proper measurement of the performance of the running proto vehicle and documenting all observations during the tests.

Qualification Pack Details:

QP NOS Reference	ASC/Q8402
QP NOS Name	Test Driver
NSQF Level	5

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

8331.0600

Signalman, Tram

Signalman, Tram guides operation of tram cars on single track by signalling with flag or light. Gets acquainted with traffic rules, busy hours of work and any other special instructions issued by traffic authorities, ensures that traffic, control lights are in order, operates switches at control points for directing trams to their various destinations. May signal tram to stop or to proceed by waving red or green flags. May be designated as POINTSMAN TRAM, if engaged only in setting control points for directing trains to respective directions.

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

8331.9900

Bus and Tram Drivers, Other

Bus and Tram Drivers, Other include drivers who drive and tend buses or street tramcars to transport passengers, mail or goods not elsewhere classified.

ISCO 08 Unit Group Details:

Code	8331
Title	Bus and Tram Drivers

Family 8332

Heavy Truck and Lorry Drivers

Heavy-truck and lorry drivers drive and tend heavy motor vehicles to transport goods, liquids and heavy materials over short or long distances.

8332.0100

Driver Truck

Driver, Truck drives motor truck for transporting goods from one place to another, observing road signals and traffic rules. Checks fuel, oil, water, lights, brakes etc., and ensures that vehicle is provided with tools, tarpaulin and all documents required under Motor Vehicles Act such as registration book, fitness certificate, route permit, etc., before commencing run. Attends to running repairs and keeps truck in working order. May make deliveries, collect payments and obtain and issue receipts.

ISCO 08 Unit Group Details:

Code	8332
Title	Heavy Truck and Lorry Drivers

8332.0200

Tram Car Driver (Mines)

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Tram Driver, Mines drives electric cars for transporting mining material on surface or underground in small waggons, tubs etc. Inspects engine, electric connections, gasoline etc. provided in tram-car; attaches empty small waggons or tubs to tram car and positions them for loading mining material; shunts and detaches loaded waggons on surface or underground for transportation of material to other places through trolley or other vehicles; attaches empty waggons for repeating process; inspects engine or power line at end of shift. May manipulate levers to open or tilt cars to dump material; may fuel and lubricate the engine.

ISCO 08 Unit Group Details:

Code 8332

Title Heavy Truck and Lorry Drivers

8332.9900

Heavy Truck and Lorry Drivers, Other

Heavy Truck and Lorry Drivers, Other include drivers who drive and tend heavy motor vehicles to transport goods, liquids and heavy materials over short or long distances not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8332

Title Heavy Truck and Lorry Drivers

Group 834

Mobile Plant Operators

Mobile Plant Operators drive, tend, operate and monitor special-purpose motorised, machinery or equipment used for clearing or preparing land; digging, moving, and spreading earth, rock and

similar materials; and lifting or moving heavy objects.

Occupations in this Group are classified into the following Families:

8341	Mobile Farm and Forestry Plant Operators
8342	Earth Moving and Related Plant Operators
8343	Crane, Hoist and Related Plant Operators
8344	Lifting Truck Operators

Family 8341

Mobile Farm and Forestry Plant Operators

Mobile Farm and Forestry Plant Operators drive, tend, operate and monitor one or more types of special-purpose motorised, mobile machinery or equipment used in agricultural, horticultural and forestry operations.

8341.0101

Tractor Operator, Farm

Tractor Operator, Farm; Tractor Driver, Farm operates and services farm tractor having different attachments for ploughing, harrowing, harvesting and other agricultural operations. Checks different parts of tractor to ensure that it is in proper working order. Collects, attaches and adjusts special equipment, required for different operations of tractor. Feeds tractor with fuel and demarcates land for ploughing. Starts tractor and drives it through fields at regulated speed depending on nature of soil and work. Controls operation of different attachments including turning of wheels by operating levers and pedals as

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

required. Tows trailers laden with crops and other materials when required. Cleans and oils machine. Maintains tractor and other implements in good working order and keeps record of fuel consumption. May supervise work of Helpers. May detect mechanical defects and undertake minor repairs.

Qualification Pack Details:

QP NOS Reference	AGR/Q0401
QP NOS Name	Tractor Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8341
Title	Mobile Farm and Forestry Plant Operators

8341.0200

Operator, Farm Machines

Operator, Farm Machines operates and maintains various kinds of power, animal or hand driven farm machines used in agricultural, dairy, poultry and other farms. Fits and adjusts special equipment intended to be used in different power, hand or animal driven farm machine. Outlines area for operation. Harnesses animals to machine or implement and adjusts it if necessary. Drives power or animal driven machine through fields at regulated speed. Controls movements and operations of machine and attachments by operating levers or paddles as necessary. Checks performance, ensures efficient running, and refuels and lubricates machine when needed. Keeps machines and other implements cleaned, lubricated and in good working order. Maintains record of food and fuel consumption. May supervise work of helpers. May do minor repairs to machines and attend to minor ailments of

animals used. May be designated according to machine handled.

ISCO 08 Unit Group Details:

Code	8341
Title	Mobile Farm and Forestry Plant Operators

8341.0201

Harvesting Machine Operator

Harvesting Machine Operator, also known as Combine Harvester Operator, is responsible for safe operation and day-to-day maintenance of harvesting machine. The individual at work sets up the harvesting machine for day's work by conducting pre-start procedures, operate the machine to harvest the crop, perform machine shut down procedure, does its day-to-day maintenance and takes up basic repair of the harvesting machine to keep it operational during critical harvest time.

Qualification Pack Details:

QP NOS Reference	AGR/Q1002
QP NOS Name	Harvesting Machine Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8341
Title	Mobile Farm and Forestry Plant Operators

8341.0300

Tractor Driver, Construction

Tractor Driver, Construction operates petrol or diesel powered tractor to haul vehicles or implements such as trailers, waggon, graders, etc. for pushing, pulling or moving goods and material or dumping earth. Checks engine oil, radiator water,

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

diesel or petrol supply and other important greasing points of vehicles. Checks that brakes and pedals of vehicle are in good condition. Fastens attachments, such as graders, trailors, ploughs, and rollers to tractor with hitch pins; releases brakes, shifts gears, and depresses, accelerator or moves throttle to control forward and backward movement of machine; steers tractor by turning steering wheel and depressing brake pedals. May couple and uncouple loads to and from tractor. May lubricate and repair tractor and attachments. May be designated according to type of power utilised as DIESEL TRACTOR OPERATOR OR GASOLINE-TRACTOR OPERATOR.

ISCO 08 Unit Group Details:

Code 8341
Title Mobile Farm and Forestry Plant Operators

8341.9900

Farm Machinery Operators, Other

Farm Machinery Operators, Other include all other workers engaged in operating farm machinery for agricultural purposes, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8341
Title Mobile Farm and Forestry Plant Operators

Family 8342

Earth Moving and Related Plant Operators

Earth Moving and Related Plant Operators operate machines to excavate, grade,

level, smooth and compact earth or similar materials.

8342.0101

Bulldozer Operator

Bulldozer Operator operates bulldozer (caterpillar tractor with concave steel scrapper blade mounted in front of chassis) to move, distribute and level earth. Starts motor and adjusts hand lever to regulate height of scrapper blade from ground; engages clutch and releases brake to drive machine to push earth; operates levers to level and distribute it; lubricates, fuels and makes minor repairs to machine. May push and pull other equipment with bulldozer.

Qualification Pack Details:

QP NOS Reference	MIN/Q 0401
QP NOS Name	Bulldozer Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code 8342
Title Earth Moving and Related Plant Operators

8342.0200

Scrapper Operator

Scrapper Operator operates scrapper (power-driven machine fitted with mechanical scrapping device) to scrape and level earth. Checks engine for fuel and oil supply, and water in radiator; starts engine and checks for proper functioning of various levers and controls; attaches double or four-wheeled scrapper attachment to tractor; drives tractor to place of work; operates levers to release scrapping device (adjustable cutting blade and scoop); runs tractor over desired area to dig up earth, level and load it

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

automatically into container; drives tractor to dumping location to unload earth from container. Repeats process until area scrapped to desired depth and levelled; lubricates, fuels and makes minor repairs to machine. May attend to minor repairs. May drive tractor for handling heavy goods and equipment. May operate special types of scrapping machines.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.0301

Scrapper Loader Operator/Loader Operator

Scrapper Loader Operator operates mechanical scrapper loader fitted to tractor to cut, remove and convey earth or other material and load it in dumper. Adjusts toe (cutting device) fitted to scrapper to cut into earth at desired angle and position; manipulates lever on control panel of tractor to start machine to cut, remove, convey material and load into dumper placed nearby. May make repairs to equipment.

Qualification Pack Details:

QP NOS Reference MIN/Q 0407

QP NOS Name Loader Operator

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.0400

Grader Operator

Grader Operator; Road Grader operates power-driven machine fitted with adjustable steel blades to level ground by pushing earth to sides. Checks fuel supply, radiator water and oil level in engine; fixes, at required angle, appropriate steel blade to arm of machine, depending on type of grading; rides in control cab, starts motor, moves levers and adjusts hand-wheels, and regulates height of scrapper blade over area of work; drives machine over centre of roadway, scrapping earth and pushing ridges of earth to edge for removal; continues the process repeatedly to level ground to required condition; tilts or changes position of blades for ground to be prepared; cleans, oils and greases machine parts. May attend to minor repairs. May operate special types of grading machines.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.0501

Power Shovel Operator/Excavator Operator

Power Shovel Operator; Excavating Shovel Operator operates power-driven shovel to excavate, move and load earth, rock, sand, gravel and other material for earth removing and construction work. Checks fuel and oil level in engine and water in radiator; starts and runs engine to ensure that various levers and controls are in good working order; drives vehicle to work site; operates hand and foot levers to lower and move shovel, fill it with material and swing it over conveyance or dumping location; pulls rope to allow bottom of shovel to open and release material; moves machine forward or backward to facilitate work; makes minor

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

repairs to machine. May maintain power unit. May be designated as GRAB-BUCKET OPERATOR, if operates power-driven machine, equipped with hinge-type bucket attachment, for excavating and moving earth, rock or similar materials.

Qualification Pack Details:

QP NOS Reference	MIN/Q 0404
QP NOS Name	Excavator Operator
NSQF Level	4

ISCO 08 Unit Group Details:

Code	8342
Title	Earth Moving and Related Plant Operators

8342.0600

Bucket Wheel Excavator Operator

Bucket Wheel Excavator Operator operates power-driven machine equipped with loading and cutting boom bearing rotating bucket wheel with teeth for excavating and moving earth, rock or similar materials and to discharge contents on to conveyor system. Moves machine under its own power to location of work. Moves hand and foot levers to place jib (boom) with bucket directly above excavating point; manipulates levers and switches on operating panel of machine to start or stop excavator; operates lever to raise, dip or swing boom in required direction and position; observes meters and gauges to regulate cutting of earth, to drop open bucket into material, to close and lift filled bucket, to swing jib and place bucket, and to release material on conveyor belt for transporting to processing point. Makes minor repairs to machine.

ISCO 08 Unit Group Details:

Code	8342
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Title Earth Moving and Related Plant Operators

8342.0700

Trench Digging Machine Operator

Trench Digging Machine Operator operates power-driven machine mounted on wheels or chains and equipped with devices for digging trenches, such as those for sewer, water, drainage, oil and gas pipelines. Starts engine and pulls levers to control movement of caterpillar treads to move machine into position; engages excavating mechanism and moves hand levers to start or stop digging equipment, and to raise or lower it for correct depth of trench; makes minor repairs to machine. May set up line along which machine is guided.

ISCO 08 Unit Group Details:

Code	8342
Title	Earth Moving and Related Plant Operators

8342.0800

Dragline Operator

Dragline Operator operates power-driven machine equipped with dragline bucket for excavating and moving earth, rock, gravel or similar materials. Checks fuel and oil level in engine and water in radiator; starts and runs engine to test and ensure good performance of all components, moves machine under its own power to location of work; moves hand and foot levers to place jib (boom) with bucket above excavation point, lower bucket on desired spot, drag it towards machine and fill it with material, place bucket over unloading point, tilt bucket, and release material. Makes necessary repairs to machine, and follows proper operating and safety conditions.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.0900

Dredger Operator

Dredger Operator operates power-driven equipment mounted on dredge for excavating rock or removing silt from navigation channel to enable seagoing vessels to enter and leave harbour. Directs and supervises crew in placing dredge in position for excavating; starts and stops engines for operating excavating equipment; watches tide gauge and adjusts excavating mechanism to work uniformly; operates ladder excavating equipment, by manipulating levers and hand-wheels to raise or lower jib (boom) equipped with endless chain of steel buckets, and observing contents of buckets to ascertain type of material being excavated; operates hydraulic excavating equipment by pushing or pulling levers to raise or lower frame on which suction pipe and cutter head are mounted, and by starting and stopping rotation of cutter head; observes vacuum and pressure gauges to determine whether sand or water is being raised; operates dipper or hinged bucket excavating equipment by manipulating hand and foot levers to raise or lower dipper or buckets into water, and by adjusting position of jib for loading or unloading dipper or bucket. May change position of dredge by drawing in or letting out anchor cables. May make repairs to equipment. May be designated according to type of excavating equipment on dredge.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.1000

Boom Driver

Boom Driver signals and assists Dredger Operator for correct lowering and raising of dredger dipper arm to remove silt or rocks from navigation channel and port mouth. Operates hand and foot levers to raise or lower dipper or buckets into and out of water, and to adjust position of jib for loading or unloading dipper or bucket; ensures firm pushing of dipper arm in seabed by observing gauges; operates controls to open bucket for dumping dredged material at proper place, signalling Dredger Operator to move dredge.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.1100

Pile Driver

Pile Driver; Jack Hammer Operator operates power-driven or manually operated machine equipped with pneumatic, steam or drop-hammer for driving wooden, concrete or steel piles into dry ground, or water-bed for construction work. Moves hand and foot levers to move machine into position for driving piles; hoists pile and lowers it into position for driving; ensures that all drag lines and cables are in good condition, and that power or drop-hammer tied to lift pile tube securely, manipulates controls to operate hammer; makes adjustment on hoisting engine, repairs and maintaining machine. May operate air-compressor when using pneumatic power hammer.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

May direct or assist other workers in setting up pile-driver leads and machinery. May be designated according to equipment used, as COMPRESSED-AIR PILE DRIVER; DIESEL-PILE-DRIVER/OPERATOR; ELECTRIC-PILE-DRIVER/OPERATOR; POWER HAMMER-PILE DRIVER OPERATOR; STEAM-PILE-DRIVER OPERATOR, or according to kind of piles driven as SHEET-PILE-DRIVER OPERATOR; WOOD-PILE-DRIVER OPERATOR.

ISCO 08 Unit Group Details:

Code 8342
Title Earth Moving and Related Plant Operators

8342.1201

Dumper Operator/Dumper/Tipper Operator

Dumper Operator; Dump Truck Driver operates power-driven motor truck, dumping unit vehicle, or caterpillar vehicle with dumper at its rear for transporting loose material, such as sand, gravel, crushed rock, or coal. Drives loaded truck to dumping site and manipulates levers inside cab which control dumping mechanism, or turns hand crank on side of truck to raise truck body to dump load. Moves truck forward and backward to loosen and dump material adhering to side and floor of body. May operate mechanical loading equipment. May clean and lubricate vehicle and conduct running repairs.

Qualification Pack Details:

QP NOS Reference MIN/Q 0403
QP NOS Name Dumper/Tipper Operator
NSQF Level 4

ISCO 08 Unit Group Details:

Code 8342
Title Earth Moving and Related Plant Operators

8342.1202

Dumper Operator

Dumper Operator drives a heavy specialized truck used to haul large volumes of over burden, rock or ore over short distances. The Dumper Operator then uses the body hoist control lever to tip the rear part of the truck in order to discharge its load to rear, bottom or one side of the truck. Dumper Operators are responsible to check that their safety systems are working properly and for performing basic maintenance on the Dumper.

Qualification Pack Details:

QP NOS Reference ISC/Q0003
QP NOS Name Dumper Operator
NSQF Level 3

ISCO 08 Unit Group Details:

Code 8342
Title Earth Moving and Related Plant Operators

8342.1300

Scoop Truck Operator

Scoop Truck Operator operates truck equipped with tilting scoop attachment to load and move loose materials, such as sand, fertilizer, etc., in warehouse or other establishment. Starts truck and moves lever to lower scoop; drives truck forward to push scoop into heap of material to be moved; fills scoop, raises it, and drives truck forward until scoop is over storage bin or dumping location; moves lever to

tilt scoop forward and empty its contents; repeats operation to move required quantity of material. May operate truck with drop-bottom scoop to load, remove and discharge loose material by opening and closing bottom. May clean and lubricate vehicle. May conduct running repairs to vehicle.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.1400

Trippler Machine Operator

Tippler Machine Operator operates power-driven tippling machine to tip open wagon for unloading coal or other materials from it. Observes loaded wagon pushed into position to platform of tippling machine; ensures fastening of wagon securely to platform with chain or other contrivance to avoid derailment; manipulates levers and switches on tippler machine to tip wagon to empty contents or load conveyor or other tank and bring back wagon to position. Repeats process with other loaded wagons.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.1500

Conveyor Operator

Conveyor Operator operates power-driven endless chain or conveyor belt at constant speed to transport material continuously to required place. Starts and stops conveyor by manipulating motor

switches and clutch levers; adjusts movement of conveyor at required speed; regulates flow of material according to instructions or knowledge of process by switching conveyors at interjection points, opening and closing chute slide, and adjusting conveyor scales and cut-offs to deposit desired amounts of materials at process points; maintains constant surveillance of conveyor operations to prevent break-downs; ensures pulleys, rollers and other mechanism does not get jammed or heated. Oils and tightens conveyor parts and joints; makes repairs to conveyor belt and driving mechanism. May transfer material from one conveyor to another by manipulating levers. May be designated as BUCKET-CONVEYOR OPERATOR, if tends bucket-type conveyors used to convey crushed rock, lime or other loose materials.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.1600

Spreader Operator

Spreader Operator operates power-driven machines equipped with receiver and spreader boom to receive earth or other material from main conveyor and spread it at specified site. Starts and stops machine; manipulates levers to raise, dip and swing spreader boom in desired position; moves machine under its own power to specified location and operates lever to swing boom and spread material. Makes minor repairs to machine.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.1700

Road Roller Driver

Road Roller Driver drives steam or diesel road roller to consolidate and level road, pavement or other surface to desired compact and smoothness. Checks fuel, oil and water supply in engine; starts engine and drives roller backward and forward over surface wheel; repeats operation over various layers of materials used in making roads or similar works of construction, until desired compactness or smoothness has been obtained. Oils and greases machine and makes minor repairs.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.1800

Bitumen Mixing Machine Operator

Bitumen Mixing Machine Operator; Coal-Tar Mixing Machine Operator operates mobile power-driven bitumen or coal tar mixing machine to mix bitumen or coal tar with gravel for paving roadway, airstrip under construction or repair, or for coating roofs to make them water-proof. Starts and regulates fires under boiler or power unit, asphalt heating kettles, and aggregate drying drum; starts and stops various units by manipulating hand levers. Ensures aggregate and bitumen are at proper temperature, by observing heat recording device; manipulates levers on pumps which supply asphalt to kettles or mixing box; obtains test reports or makes own tests to ensure that mixer conforms to specifications. Oils and greases machine. May make minor repairs to the machine.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.1900

Sand Blast Operator, Construction

Sand Blast Operator, Construction directs blast of sand compressed air from nozzle against stone, brick structure, or other hard surface to clean dirt, grease, etc. prior to laying of cement concrete, plastering, etc. Examines surface for sand blasting; fills sand container with sifted sand; connects compressed-air hose to sand container and nozzle and adjusts pressure valve; wears heavy gloves to protect hands, and helmet or hood as protection against breathing sand-laden aid and to protect eyes; holds nozzle at proper distance from object and releases trigger finger of nozzle to blow sand against surface of object; cleans and prepares surface for further processing.

ISCO 08 Unit Group Details:

Code 8342

Title Earth Moving and Related Plant Operators

8342.2001

Excavator Operator

Excavator Operator drives and controls an excavator which is a self-propelled machine used to dig and dump over the base level of the machine.

Qualification Pack Details:

QP NOS Reference ISC/Q0004

QP NOS Name Excavator Operator

NSQF Level 3

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 8342
Title Earth Moving and Related Plant Operators

QP NOS Name Stoking Car Operator Ferro Alloys
NSQF Level 3

8342.2101

Mobile Equipment Operator

Mobile Equipment Operator inspects mobile equipment like Fork Lift truck, Skid-loader/Bob Cat, Pay loader and JCB, as used in steel plant for proper working condition, loading and driving the vehicle for carrying materials from one place to another inside the plant. This job also involves carrying out basic maintenance of the equipment.

Qualification Pack Details:

QP NOS Reference ISC/Q0015
QP NOS Name Mobile Equipment Operator
NSQF Level 3

ISCO 08 Unit Group Details:

Code 8342
Title Earth Moving and Related Plant Operators

8342.9900

Earth Moving and Related Plant Operators, Other

Earth Moving and Related Plant Operators, Other include workers who operate and monitor machines to excavate, grade, level and compact earth or similar materials and lay surfaces of asphalt and concrete not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8342
Title Earth Moving and Related Plant Operators

8342.2201

Stoking Car Operator Ferro Alloys

Stoking Car Operator Ferro Alloys inspects the stoking car is in proper condition ensuring run/drives on the shop floor for stoking the charge and to release the gases between the electrode without touching the electrodes. It involves covering the arc properly and distribute the charge uniformly. It also involves carrying out basic maintenance of the stoking car.

Qualification Pack Details:

QP NOS Reference ISC/Q1101

ISCO 08 Unit Group Details:

Code 8342
Title Earth Moving and Related Plant Operators

Family 8343

Crane, Hoist and Related Plant Operators

Crane, Hoist and Related Plant Operators operate and monitor stationary and mobile cranes and other hoisting equipment.

8343.0100

Driver, Steam Crane

Driver, Steam Crane operates steam-driven crane for lifting and moving heavy objects. Operates crane mounted on rail car by engaging clutch, manipulating

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

throttle and pressing brakes to move crane on track, and to stop it. Ensures proper firing of boiler and maintains required steam, pressure. Manipulates clutches, throttles, brakes and control valves to rotate crane on its car to raise and lower crane boom, or to raise or lower load line and anything attached to it. Follows signals of workers to hoist, slow, lower or unload heavy objects and materials in desired position. Ensures that lifting tackle and other parts of equipment are in perfect condition and maximum lifting capacity of load not exceeded. Cleans boilers periodically and attends to minor repairs or equipment. May operate steam-driven winches to lift heavy objects.

ISCO 08 Unit Group Details:

Code 8343

Title Crane, Hoist and Related Plant Operators

Code 8343

Title Crane, Hoist and Related Plant Operators

8343.0300

Crane Operator, Pneumatic

Crane Operator, Pneumatic; E.M.E. Operator, Cranes operates air lock system crane (Terra-Cobra, Lima) run by diesel power and mounted on pneumatic wheels, to lift, carry and lower heavy objects from one place to another. Checks oil, water, etc.; starts engine and drives crane to work site, using hand gears and levers. Starts crane motor and manipulates controls to open and close valves to maintain correct supply of air to equipment by observing pressure, temperature and other gauges and to position crane, crane jib (boom) and lifting tackle so that load can be attached; raises, moves, lowers and places heavy load in required position following signals from helpers, ensuring proper operating and safety conditions. Cleans and oils equipment and performs other servicing tasks to keep equipment in running order. May make minor repairs.

8343.0200

Crane Operator, Diesel Electric

Crane Operator, Diesel/Electric operates diesel-electric powered (Tourna) crane mounted on pneumatic wheels to lift, carry and lower heavy loads from one place to another. Starts engine and drives vehicle to work site. Manipulates controls to position crane, crane job (boom) and lifting tackle so that load can be attached. Raises, moves and places load in required position following signals from slinger or helpers. Ensures proper operating and safety conditions as guided by signals from other workers. Lubricates moving parts, tightens nuts and bolts and performs other servicing tasks to keep equipment in good working order. May attend to minor running repairs.

ISCO 08 Unit Group Details:

ISCO 08 Unit Group Details:

Code 8343

Title Crane, Hoist and Related Plant Operators

8343.0400

Crane Operator, Hydraulic

Crane Operator, Hydraulic operates (Zambo) crane mounted on pneumatic wheels and driven by hydraulic power to lift, carry and lower heavy objects from one place to another. Checks jib and cables for security and serviceability; starts crane motor; operates levers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

controlling valves to raise or lower hook for loading or unloading of object. Ensures that load or object is hooked securely to lifting tackle by workers or slinger. Manipulates hand levers to raise and move load to required level and unload object in desired position. Operates crane in accordance with signals from other workers, observing safety conditions while loading and unloading.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.0500

Mobile Crane Operator

Mobile Crane Operator; Tractor Crane Operator; Crawler Crane Operator; Truck Crane Operator operates diesel or petrol-driven mobile crane, mounted on caterpillar tracks or truck chassis, to lift, carry and lower heavy objects in any direction. Starts engine and drives crane to work site; starts crane motor and manipulates controls to position crane, crane jib (boom) and lifting tackle to attach or detach load; raises, moves and places load in required position. May direct helper to drive crane into position. May operate a crane fitted with mechanical grab attached to lifting tackle.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.0501

EOT Crane Operator

EOT Crane Operator operates overhead cranes for safe transfer of raw material,

intermediaries and finished products within the plant on receiving the signal.

Qualification Pack Details:

QP NOS Reference	ISC/Q0007
QP NOS Name	EOT Crane Operator
NSQF Level	3

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.0600

Crane Operator, Gantry

Crane Operator Gantry; Gantry Crane Operator operates electrically-driven high capacity crane mounted on gantry steel tower structure, supported by wheels to run on track laid along ground, to lift, move and lower heavy objects from ground to heights and vice versa. Switches on power supply; moves electrical control levers and brake pedals to run towers along their tracks, to run hoisting trolley (rack) across bridge, and to raise or lower load line and anything attached to it following signals from slinger on ground, observing safety conditions. May be designated according to type of work performed or type of materials moved.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.0700

Overhead Crane Operator

Overhead Crane Operator; Bridge Crane Operator operates electrically-driven crane running on overhead rails laid on metal bridge to lift, move and lower heavy objects from one place to another.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Switches on power supply; takes position in overhead cabin and signals ground crew to move away from crane; manipulates levers and controls to check and assure bridge hoist, lifting tackle etc., are free from mechanical jamming and in working order; operates controls to move bridge along rails and lifting equipment along bridge tackle for loads to be attached; follows signals from ground crew to raise, move and lower load in desired position observing proper operating and safety conditions. Shuts down power supply on completion of work. May undertake minor repairs to crane.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.0800

Derrick Crane Operator

Derrick Crane Driver operates electrically-driven derrick crane consisting of movable jib (boom) which can be raised or lowered or turned full circle or moved forward and backwards to lift, move and lower heavy objects from one place to another. Checks jib and cables for security and serviceability; switches on power supply; takes position in overhead cabin and starts crane motor; operates controls to swing, raise or lower jib and to place lifting tackle for load to be attached. Manipulates controls to lift load attached to movable arm (jib) by ground crew; raises, moves and lowers load to desired position following signals from workers on ground and observing proper operating and safety conditions. Instructs and supervises cleaning, greasing and oiling of machinery parts. May attend to minor repairs.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.0900

Derrick Crane Operator, Magnetic

Derrick Crane Operator, Magnetic operates electric-powered derrick crane to magnetically lift and move ingots or heavy iron balls and to break iron balls by dropping. Switches on power supply and starts crane motor; manipulates levers to position derrick jib, lower magnetised slings to touch cracker iron balls, lift and move jib with sling, lower load and cut off magnet to drop cracker at desired position; operates crane in accordance with signals from ground crew. Cleans, greases and oils moving parts of crane. May undertake minor repairs to machinery.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.1000

Crane Driver, Hammer Head

Crane Driver, Hammer-Head operates power-driven hammer-head crane consisting of fixed jib, with lifting equipment attached to trolley that can be moved on rails along jib, forward or backward, as necessary; jib itself being capable of rotating full circle in horizontal plane. Switches on power supply; checks jib and cables for security and serviceability; operates controls to swing, raise or lower jib and to place lifting tackle for load to be attached; raises, moves and lowers load to desired position; operates

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

crane observing signals from workers on ground to obtain position of jib and lifting hook. Instructs and supervises helpers in cleaning, greasing and oiling machinery.

ISCO 08 Unit Group Details:

Code 8343

Title Crane, Hoist and Related Plant Operators

8343.1100

Winchman

Winchman; Winch Operator operates power-driven winch (hauling or lifting device, consisting essentially of a cable, a hand or power-driven drum) to lift and lower load, bend pipes, etc. or to hoist and lower dredging pipes, grabs etc., on dredges. Ensures that cable, winch drum and winch brake are in good working order. Threads cable through pulley wheels and introduces additional pulley wheels in cable linkage, if necessary; connects end of cable to object to be moved, or directs helpers to do so; starts engine of winch, or turns winch handle, to raise or pull object into position, adjusting speed of pulling and applying brake as necessary. May control winch in accordance with signals by other workers. May attend to minor repairs and tend cable, ropes, pulley, and lifting tackle. May operate winches to draw heavy cargoes or boats to shore. May also work on manually operated winches. May be designated according to power used, such as WINCH DRIVER, PNEUMATIC; WINCH DRIVER, ELECTRICAL.

ISCO 08 Unit Group Details:

Code 8343

Title Crane, Hoist and Related Plant Operators

8343.1200

Hoist Operator

Hoist Operator; Hoist Operator, Construction operates hoisting equipment to raise or lower power-controlled cage, platform or truck carrying men and materials at construction site. Ensures that cables, drums, and other hoisting equipment are in perfect condition; loads or oversees loading of cage, platform or other lifting tackle connected to hoist, and starts motor; moves levers to raise or lower load to required point; moves lifting tackle to fresh position, when unloading completed. May raise or lower hoist in response to bell or other signals by workers. May work on surface or underground. May attend to minor repairs. May operate electric, steam or other types of hoist.

ISCO 08 Unit Group Details:

Code 8343

Title Crane, Hoist and Related Plant Operators

8343.1300

Bridge Opening Operator

Bridge Opening Operator operates steam, hydraulic or electric devices to control and closing of bridge for passage of water or road traffic. Watches passage of traffic and opens and closes bridge manually or by manipulating gears, levers, etc. as desired, ensuring safety of passing traffic by blowing horns or giving other signals, if necessary; operates light or semaphore signals to indicate whether bridge is open or closed. Keeps bridge equipment in good working order. May check gate pass for men and material. May make minor repairs to machinery.

ISCO 08 Unit Group Details:

Code 8343

Title Crane, Hoist and Related Plant
Operators

8343.1400

Winding Engineman

Winding Engineman; Winding Engine Driver; Hoist Operator, Mine operates steam, diesel or electric-driven equipment to raise or lower cage or skip with men or materials through vertical or inclined mine shaft according to signal from surface or underground workers. Starts engine and undertakes trial run of equipment to check and ensure that component parts of engine, cable, etc. are in good working order; manipulates controls to raise or lower cage/skip in response to bell or other signals given by workers at top of mine shaft or below surface; stops hoist when dial indicator shows that cage or skip has reached required level. May attend to minor repairs.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant
Operators

8343.1500

Haulage Engine Driver

Haulage Engine Driver; Haulage Attendant operates steam, diesel, electric or compressed air drive hauling device to lift or lower full or empty tubs in collieries or mines. Ensures that cable, winch brake etc. are in good working order; starts engine in response to signals to raise or lower cars or tubs along haulage track, as required, regulating speed; stops hauling device according to signals, readings, in indicator and drum marks. May attend to minor repairs.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant
Operators

8343.1600

Crane and Hoist Operators, Other

Crane and Hoist Operators, Other; include Crane and Hoist Operator, not elsewhere classified such as: Monocrane Operator, if operates electrically powered monocrane fitted with fixed jib, and which turns to full circle to lift, raise and lower heavy loads from one place to another. Crane Operator, Portable, if operates tractor equipped with hoist to move designated loads from point to point in shipyard. Skip-hoist Operator, if tends hoist to lift building materials to upper levels of structures undergoing construction.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant
Operators

8343.1700

Aerial Ropeway Operator

Aerial Ropeway Operator; Attendant Aerial Ropeway operates endless ropeway to transport passengers from one place to another such as from pithead or refinery across river, hill tops etc. Checks that buckets and cages are securely clamped to rope, pulley runs freely and rope is in working order; pulls levers to position cages/buckets on ground or platform for boarding or pushes button to off load, or observes signal panel and listens for malfunction of automatic offloading equipment; Communicates telephonically or signals by buzzer receiving point, readiness of load to be conveyed; pushes

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

buttons to start reel and winding cable causing cages/buckets to move between boarding and offloading area; maintains desired distance between each cage in ropeway by manipulating mechanical retarder to prevent collision with one another; observes movement of rope and operates machine to regulate it. Switches off ropeway and applies brakes on receiving signal from load receiving end. May maintain record of rounds of passengers transported. May attend to running repairs, lubrication etc. of plant and equipment.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.1800

Liftman

Liftman; Lift Operator operates electric lift to raise or lower cage, carrying passengers and goods from one floor to another in residential, office, hotel, hospital, commercial or industrial building according to bell or buzzer signals. Opens outer gate of lift entrance and inner gate of lift cage by turning handle or by electric switches to permit men and goods inside carrier cage, closes both gates manually or by electrical switches; presses electric push button of desired floor number as indicated in panel to move cage carrying men or material upward or downward as required. Stops lift at required floor by operating switches, opens double gates of lift for passengers and goods to move out and move in. Observes bell or buzzer sound to operate lift to called floor to take men and material. Ensures that lift is not loaded over authorised capacity. Reports to superior malfunctioning of lift when detected. May operate automatic lifts

which by push button action closes gates, travels and stops at required floor, automatically.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

8343.9900

Crane, Hoist and Related Plant Operators, Other

Crane, Hoist and Related Plant Operators, Other include operators who operate and monitor cranes and other hoisting equipment not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8343
Title Crane, Hoist and Related Plant Operators

Family 8344

Lifting Truck Operators

Lifting-Truck Operators drive, operate and monitor lifting-truck or similar vehicle to transport, lift and stack pallets with goods.

8344.0100

Lift Truck Operator

Lift Truck Operator operates power-driven truck fitted with adjustable lifting platform to load, transport or stack merchandise and other material in warehouse, storage yard, factory, etc. Drives truck to location of load; positions truck near load; moves levers to place platform under load to raise it; manipulates levers to raise platform carrying load sufficiently above ground and drives truck to site of unloading or stacking; unloads and stacks material by

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

operating truck platform. May tow hand trucks. May operate manually operated vehicle. May attend to minor running repairs, and clean and lubricate parts of vehicle.

ISCO 08 Unit Group Details:

Code 8344

Title Lifting Truck Operators

8344.0201

Fork Lift Truck Operator

Fork Lift Truck Operator operates power-driven truck fitted with lifting fork to transport or stack merchandise and other material in warehouse, storage yard, factory, railway station or other similar establishments. Drives truck to location of load; positions truck near load and moves levers to place fork lift below load and raise; drives position; unloads and stacks material by operating lifting fork. May carry out routine servicing of truck.

Qualification Pack Details:

QP NOS Reference ASC/Q9707

QP NOS Name Fork Lift
Operator/Driver

NSQF Level 4

ISCO 08 Unit Group Details:

Code 8344

Title Lifting Truck Operators

8344.9900

Lift Truck Operator, Other

Lifting Truck Operators, Other include operators who drive, operate and monitor lifting truck or similar vehicle to transport, lift and stack pallets with goods not elsewhere classified.

ISCO 08 Unit Group Details:

Code 8344
Title Lifting Truck Operators

Group 835

Ships' Deck Crews and Related Workers

Ship's Deck Crews and Related workers carry out deck duties on board ship and similar duties on board other water-borne craft.

Occupations in this Group are classified into the following Families:

8350 Ships' Deck Crews and Related Workers

Family 8350

Ships' Deck Crews and Related Workers

Ship's Deck Crews and Related Workers carry out deck duties on board ship and similar duties on board other water-borne craft.

8350.0100

Serang, Deck/Bosun

Serang, Deck, Boatswain, Deck controls and supervises work of deck crew. Receives orders from Chief Officer, Ship, allocates work to Tindals and Lascars and supervises their iron and wood work overhauling, cargo and lifesaving gear, and other regular and emergency duties are carried out efficiently by crew. Prepares anchor to let go when vessel arrives in port, under order of Chief Officer, arranges cargo derricks and adjust ship's position on wharves. Maintains discipline among deck crew.

ISCO 08 Unit Group Details:

Code 8350

Title Ships' Deck Crews and Related Workers

8350.0300

Seaconny/OS (Ordinary Seaman)

Seaconny; Sukhani Quartermaster steers vessel following designated course under direction of officer on watch. Keeps watch on bridge during specified hours, taking over handling of helm to keep vessel on its course, and alters course as directed. Cleans bridge and wheel house and carries out such work as arranging signal equipment, hoisting flags and signals cleaning, lights etc. Guards ship's gangway in port to prevent entrance of unauthorised person.

ISCO 08 Unit Group Details:

Code 8350

Title Ships' Deck Crews and Related Workers

8350.0400

Lascar/OS (Ordinary Seaman)

Lascar; Khalasi; Seaman; Deck-hand cleans decks and deck equipment by washing decks, chipping points, painting wood and metal fixtures, and splicing wires and cables. Breaks out rigs, overhauls lifeboats, cargo-handling and life-saving gears lowers and raises lifeboats. Takes depth sounding in unfamiliar or shallow waters and shouts information to bridge. Makes ready derricks and winches for operation. May stow and remove cargo from hold.

ISCO 08 Unit Group Details:

Code 8350

Title Ships' Deck Crews and Related Workers

8350.0500

Driver, Launch/Tug Master

Driver, Launch drives engines of launches and tugs. Checks different parts of engine to ensure that it is in proper working order. Cleans, greases and oils engine parts or gets this done by Oiler Cleaner. Feeds engine with fuel (oil) and ensures that sufficient quantity of oil is stored in canes for use on way. Starts engine by regulating levers or by cranking. Increases or decreases speed or stops engine or reverses direction of boat as per signal given by Serang. Checks and regulates feed of fuel and refills oil, greases etc., as and when needed. Checks temperature of engine and slows down or stops engine if temperature is high. Supervises work of Oilers and Cleaners and diagnoses mechanical defects and undertakes minor repairs. Maintains logbook.

ISCO 08 Unit Group Details:

Code 8350

Title Ships' Deck Crews and Related Workers

8350.0600

Boatman

Boat Man piles boat to carry men and material across waterways, working alone or in groups. Checks boat for leakage or other damage. Moors boat in convenient place for enabling entry of persons or loading of cargo. Ensures that boats capacity is not exceeded and boats balance is maintained on water. Covers cargo if required to protect it from weather. Gets conversant with routes. Unmoors boat, propels and directs it by means of oars, rudder, pole, sails etc.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Moors boat on reaching destination for persons to alight and for cargo to be unloaded. May load and unload cargo.

ISCO 08 Unit Group Details:

Code 8350

Title Ships' Deck Crews and Related Workers

8350.0700

Ruddereman

Ruddereman steers course of boat, large or other water craft by manipulating rudder to desired angles. Examines before start of boat that rudder is in order and is equipped with rope, wire etc.; moves rudder from position in line with keel to change vessels' course. May assist Boatman and Oarsman in emergency.

ISCO 08 Unit Group Details:

Code 8350

Title Ships' Deck Crews and Related Workers

8350.0800

Oarsman

Oarsman rows boats, barges and other water-crafts using oars, sweeps etc. singly or in groups. Fixes oars in braces on sides of boat; takes position in boat; pulls oars by hand to propel boat; stops pulling of oars at destination or when asked by Boatman; removes oars from braces. May repair broken oars, may assist Ruddereman.

ISCO 08 Unit Group Details:

Code 8350

Title Ships' Deck Crews and Related Workers

8350.9900

Ships' Deck Ratings, Barge Crews and Boatmen, Other

Ships' Deck Ratings, Barge Crews and Boatmen, Other include all other Deck Ratings, and workers engaged in operating ships, barges, boats and like water transports, not elsewhere classified. ELEMENTARY OCCUPATIONS Elementary occupations consist of simple and routine tasks which mainly require the use of hand-held tools and often some physical effort. Most occupations in this division require skill at the first skill level.

ISCO 08 Unit Group Details:

Code 8350

Title Ships' Deck Crews and Related Workers

Division 9

Elementary Occupations

Elementary Occupations involve the performance of simple and routine tasks which may require the use of hand-held tools and considerable physical effort.

Tasks performed by workers in elementary occupations usually include: cleaning, restocking supplies and performing basic maintenance in apartments, houses, kitchens, hotels, offices and other buildings; washing cars and windows; helping in kitchens and performing simple tasks in food preparation; delivering messages or goods; carrying luggage and handling baggage and freight; stocking vending machines or reading and emptying meters; collecting and sorting refuse; sweeping streets and similar places; performing various simple farming, fishing, hunting or trapping tasks performing simple tasks connected with

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

mining, construction and manufacturing including product-sorting; packing and unpacking produce by hand and filling shelves; providing various street services; pedalling or hand-guiding vehicles to transport passengers and goods; driving animal-drawn vehicles or machinery. Supervision of other workers may be included.

Occupations in this Division are classified into the following Sub Divisions:

91	Cleaners and Helpers
92	Agricultural, Forestry and Fishery Labourers
93	Labourers in Mining, Construction, Manufacturing and Transport
94	Food Preparation Assistants
95	Street and Related Sales and Services Workers
96	Refuse Workers and Other Elementary Workers

Sub Division 91 Cleaners and Helpers

Cleaners and Helpers perform various tasks in private households, hotels, offices, hospitals and other establishments, as well as in aircraft, trains coaches, trams and similar vehicles, in order to keep the interiors and fixtures clean, and launder and press garments and textiles by hand.

Tasks performed by workers in this sub-major group usually include: sweeping or vacuum cleaning, washing and polishing floors, furniture and other objects; taking care of linen and bed-making; helping with preparation of meals and cleaning in kitchens; washing and cleaning cars and windows; pressing or laundering garments and textiles by hand.

Occupations in this Sub Division are classified into the following Groups:

911	Domestic, Hotel and Office Cleaners and Helpers
912	Vehicle, Window, Laundry and Other Hand Cleaning Workers

Group 911

Domestic, Hotel and Office Cleaners and Helpers

Domestic, Hotel and Office Cleaners and Helpers sweep, vacuum clean, wash, polish, take care of household linen, purchase household supplies; perform various tasks in order to keep clean and tidy the interiors and fixtures of hotels, offices and other establishments, as well as of aircraft, trains, buses and similar vehicles.

Occupations in this Group are classified into the following Families:

9111	Domestic Cleaners and Helpers
9112	Cleaners and Helpers in Offices, Hotels and Other Establishments

Family 9111 Domestic Cleaners and Helpers

Domestic Cleaners and Helpers sweep, vacuum clean, wash and polish, take care of household linen, purchase household supplies, prepare food, serve meals and perform various other domestic duties.

9111.0100 Domestic Servant

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Domestic Servant performs general house-hold duties and attends to personal comforts of master or employer. Performs domestic work of routine nature such as sweeping and dusting of rooms and furniture, making beds, serving meals, purchasing vegetables, meat, fish etc. from market, storing water and doing odd jobs. Prepares tea, coffee and meals. Lays the table, cleans soiled and used plates and cooking utensils. May wash clothes and look after tamed animals such as cow, dog, etc. May look after children.

ISCO 08 Unit Group Details:

Code 9111

Title Domestic Cleaners and Helpers

9111.0200

Char-Dust Cleaner and Salvager

Char Dust Cleaner and Salvager cleans floors and equipment, and performs following duties in char-house: Cleans and collects char dust from floors, pump basins, pipelines, and tank tops. Observes operating machinery, such as char-draw mechanisms, spreaders, and char-collectors, for blockades or malfunctioning, and reports irregularities to superiors. Fills sacks with salvaged char dust and sews, weighs, and stores sacks. Obtains samples of char and takes them to laboratory for analysis. Delivers requisitions, runs errands, and supplies filter blankets and wedges to other workers.

ISCO 08 Unit Group Details:

Code 9111

Title Domestic Cleaners and Helpers

9111.0300

Cleaner, Home Restoration Service

Cleaner, Home Restoration Service cleans and restores interiors of homes damaged by fire, smoke, or water, using commercial cleaning equipment: Receives work orders and schedules from supervisor. Carries floor-mounted or portable commercial carpet, upholstery, and interior cleaning machines, tools, and supplies to work site. Cleans carpet, upholstery, floors, walls, ceilings, draperies, windows, and room accessories. Places fans and other equipment in rooms to remove moisture from carpet, upholstery, and air. Sprays or fogs carpet, upholstery, and accessories with fabric conditioners and protectors, deodorizers, and disinfectants, using hand and power sprayers, applying knowledge of types of fabrics, dyes, and chemical sprays. Inspects completed restoration to ensure conformance to standards. Collects payments and discusses results of work with customers.

ISCO 08 Unit Group Details:

Code 9111

Title Domestic Cleaners and Helpers

9111.9900

Domestic and Related Helpers, Cleaners and Launderers, Other

Domestic and Related Helpers, Cleaners and Launderers, Other include all other domestic Helpers and Cleaners not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9111

Title Domestic Cleaners and Helpers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family 9112

Cleaners and Helpers in Offices, Hotels and Other Establishments

Cleaners and Helpers in Offices, Hotels and Other Establishments perform various cleaning tasks in order to keep clean and tidy the interiors and fixtures of hotels, offices and other establishments, as well as of aircraft, trains, buses and similar vehicles.

9112.0100

Dusting Man, Office; Farash, Office/House Keeping Attendant

Dusting Man, Office; Farash, Office performs routine unskilled duties in office or establishment such as dusting of rooms and furniture and opening and closing office. Gets rooms swept by Sweeper in his presence. Dusts office tables, chairs, doors, windows, etc. Sprays periodically DDT or other insecticides. May sweep office or institution. May work as watchman and guard office or institution during day or night.

ISCO 08 Unit Group Details:

Code 9111

Title Domestic Cleaners and Helpers

9112.0200

Cleaner Hospital

Cleaner, Hospital cleans hospital patient rooms, baths, laboratories, offices, halls, and other areas: Washes beds and mattresses, and remakes beds after discharge of patients. Keeps utility and storage rooms in clean and orderly condition. Distributes laundered articles and linens. Replaces soiled drapes and cubicle curtains. May disinfect and

sterilize equipment and supplies, using germicides and sterilizing equipment.

ISCO 08 Unit Group Details:

Code 9111

Title Domestic Cleaners and Helpers

9112.9900

Helpers and Cleaners in Offices, Hotels and Other Establishments, Other

Helpers and Cleaners in Offices, Hotels and Other Establishments, Other include workers who perform various cleaning tasks in order to keep clean and tidy the interiors and fixtures of hotels, offices and other establishments, as well as of aircraft, trains, buses and similar vehicles not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9111

Title Domestic Cleaners and Helpers

Group 912

Vehicle, Window, Laundry and Other Hand Cleaning Workers

Vehicle, Window, Laundry and Other Hand Cleaning Workers clean windows, showcases or other surfaces of buildings or vehicles and press, launder or dry-clean linen and other textiles by hand.

Occupations in this Group are classified into the following Families:

9121 Hand Launderers and Pressers

9122 Vehicle Cleaners

9123 Window Cleaners

9129 Other Cleaning Workers

Family 9121

Hand Launderers and Pressers

Hand launderers and pressers launder, press or dry-clean garments, linen and other textiles by hand.

9121.0100

Dhobi

Dhobi; Washer man washes and cleans garments and other articles of washable fabrics and presses them. Collects soiled clothes and garments from clients, marks them with marking ink for identification. Sorts soiled articles according to type and treatment to be given. Fills tub with water and adds proper amount of soap, washing soda or other chemicals and dips coloured or delicate garments into soapy water or chemical solution and agitates it by hand. Spreads wet garments on flat surface, and scrubs with hand or brush and rinses garment in clear water till dirty water stops coming out. Treats excessively soiled garments of coarse cloth separately by applying chemicals on them, by hand, boiling them in tub or in closed oven, beating them with hand on stone or club on stone or wood and washing them in clear water in tanks, rivers and lakes. Dries garments in open air by hanging them on rope, wire or spreading them on ground. Irons dried garments using hand iron-press. May wash garments and other textile furnishings in machine. May treat white and delicate garments with chemicals (Blue and Starch) for shine and bleaching.

ISCO 08 Unit Group Details:

Code 9121

Title Hand Launderers and Pressers

9121.0200

Laundry Workers (Marker, Sorter)

Laundry Workers, Other perform variety of routine and low skilled tasks in laundry and are designated according to nature of work performed such as MARKER marks customer-identifying symbols on soiled garments or other articles received for cleaning, dyeing, pressing, etc., by writing code number on garment or on tag with pen and waterproof ink and sewing tag to garment. SORTER sorts garments or articles received from customers according to type and colour of material, and fastness of dye.

ISCO 08 Unit Group Details:

Code 9121

Title Hand Launderers and Pressers

9121.0300

Dry Cleaner, Hand

Dry-Cleaner, Hand cleans by hand, woollen and silken garments, textile furnishings and similar articles using chemical solution or other dry cleaning solvents. Examines garments or articles to ascertain condition and type of material and decides on type of treatment to be given. Lays article on table, treats with chemical solution and rubs or brushes parts most soiled and immerses article in solution for required period. Rinses article in fresh solution and allows it to dry in open air. May clean upholstered furniture. May operate dry-cleaning machine.

ISCO 08 Unit Group Details:

Code 9121

Title Hand Launderers and Pressers

9121.0400

Spot Remover

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Spot-Remover removes with chemical solution spots and stains from clothing's, textile furnishings and similar articles, either before or after cleaning. Examines articles for condition and nature of spots or stains. Lays article on table and applies correct chemical solution to stains and rubs with brush or sponge till stain dissolves. May prepare chemical solutions. May wash article before removing spot.

ISCO 08 Unit Group Details:

Code 9121

Title Hand Launderers and Pressers

9121.0500

Rug Cleaner

Rug Cleaner operates in cooperation with one or more workers automatic rug cleaning machines which soaps, scrubs, rinses and partially dries floor coverings in one continuous operation. Inserts edge of rug between feed rollers and starts machine which carries rug under soap spray, revolving, scrubbing brushes and rinsing spray. Stops machine and drags rug to drying room and hangs it on racks or poles with help of other workers. May clean rug by hand, pouring soap solution on surface and scrubbing brush over it.

ISCO 08 Unit Group Details:

Code 9121

Title Hand Launderers and Pressers

9121.0600

Presser, Hand

Presser, Hand; Ironer, Hand presses garments, textile furnishings and similar articles with heated hand-pressing-iron to remove wrinkles caused by washing, handling, etc. Spreads material on ironing

board or table; moistens cotton material and presses flat with heated iron. Takes special care in pressing delicate articles such as silken, woollens, and similar other articles by spreading moist linen over them before pressing. Moves iron over material applying necessary heat and pressure to obtain desired effect and shape. May wash garment or other material by hand or dry-clean it. May moisten material or any part during pressing.

ISCO 08 Unit Group Details:

Code 9121

Title Hand Launderers and Pressers

9121.0700

Dry Cleaner, Spot

Dry Cleaner, Spot identifies stains in wool, synthetic, and silk garments and household fabrics and applies chemical solutions to remove stains, determining spotting through dry-cleaning procedures on the basis of type of fabric and nature of stain: Spreads article on worktable and positions stain over vacuum head or on marble slab. Sprinkles chemical solvents over stain and pats area with brush or sponge until stain is removed. Applies chemicals to neutralize effect of solvents. Sprays steam, water, or air over spot to flush out chemicals and dry garment. Applies bleaching powder to spot and sprays with steam to remove stains from certain fabrics which do not respond to other cleaning solvents. May mix bleaching agent with hot water in vats and soak material until bleached. May operate dry cleaning machine.

ISCO 08 Unit Group Details:

Code 9121

Title Hand Launderers and Pressers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

9121.9900

Launderers, Dry Cleaners and Pressers, Other

Launderers, Dry Cleaners and Pressers, Other include all laundry and dry cleaning, service workers not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9121

Title Hand Launderers and Pressers

Family 9122

Vehicle Cleaners

Vehicle cleaners, wash, clean and polish vehicles.

9122.0100

Cleaner, Window

Cleaner, Window cleans windows, glass partitions, mirrors, and other glass surfaces of building interior or exterior, using pail of soapy water or other cleaner, sponge, and squeegee. Crawls through window from inside and hooks safety belt to brackets for support, sets and climbs ladder to reach second or third story, or uses swing stage, or other scaffolding lowered from roof to reach outside windows, or stands to reach first floor or inside windows.

ISCO 08 Unit Group Details:

Code 9122

Title Vehicle Cleaners

9122.0201

Washer

Washer washes, scrubs and polishes the interiors and exteriors of vehicles

(including glass) in the vehicle to protect their appearance. The individual also uses the pressurised water to clean the exterior surface before the vehicle is made ready for delivery for the first time after PDI is done on the vehicle.

Qualification Pack Details:

QP NOS Reference ASC/Q1101

QP NOS Name Washer

NSQF Level 2

ISCO 08 Unit Group Details:

Code 9122

Title Vehicle Cleaners

9122.0301

Driving Assistant

Driving Assistant is often called Cleaner or Helper. Individuals at this job need to assist the driver by doing the washing and cleaning of the external/internal structure of vehicle, maintaining up keep of tool box, assisting in minor repairs and running miscellaneous errands.

Qualification Pack Details:

QP NOS Reference ASC/Q9701

QP NOS Name Driving Assistant

NSQF Level 2

ISCO 08 Unit Group Details:

Code 9122

Title Vehicle Cleaners

9122.9900

Vehicle, Window and Related Cleaners, Other

Vehicle, Window and Related Cleaners, Other include workers who clean windows, showcases or other glass surfaces of buildings or vehicles not elsewhere classified.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 9122
Title Vehicle Cleaners

Family 9123 Window Cleaners

Window Cleaners wash and polish windows and other glass fittings.

Family 9129

Other Cleaning Workers

Other Cleaning Workers clean surface, materials and objects, such as carpets, walls, swimming pools and cooling towers, using specialized cleaning equipment and chemicals.

Sub Division 92

Agricultural, Forestry and Fishery Labourers

Agricultural, Forestry and Fishery Labourers perform simple and routine tasks in the production of crops and livestock, cultivation and maintenance of gardens and parks, exploitation and conservation of forests, and conduct of aquaculture and fisheries operations.

Tasks performed usually include: digging, raking and shovelling using hand tools; loading unloading and stacking supplies, produce and other materials; watering, thinning, weeding and tending crops by

hand or using hand tools; planting, harvesting picking and collecting produce by hand; feeding, watering, and cleaning animals and keeping their quarters clean; monitoring livestock, reporting on their condition; preparing and operating nets, lines and other fishing tackle and deck equipment; grading, sorting, bunching and packing produce into containers; performing minor repairs on fixtures, buildings equipment, vessels and fences.

Occupations in this Sub Division are classified into the following Groups:

921 Agricultural, Forestry and Fishery Labourers

Group 921 Agricultural, Forestry and Fishery Labourers

Agricultural, Forestry and Fishery Labourers perform simple and routine tasks in the production of crops and livestock, cultivation and maintenance of gardens and parks, exploitation and conservation of forests, and conduct aquaculture and fisheries operations.

Occupations in this Group are classified into the following Families:

9211 Crop Farm Labourers
9212 Livestock Farm Labourers
9213 Mixed Crop and Livestock Farm Labourers
9214 Garden and Horticultural Labourers
9215 Forestry Labourers
9216 Fishery and Aquaculture Labourers

Family 9211

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Crop Farm Labourers

Crop farm labourers perform simple and routine tasks in the production of crops such as fruit, nuts, grains and vegetables on farms.

9211.0100 Ploughman

Ploughman ploughs fields to prepare soil for growing crops and feeds bullocks at scheduled hour. Collects plough and bullocks in morning and checks fittings, boltings, condition of plough, etc. Harnesses bullocks to plough and ploughs field using different types of plough according to necessity. Collects, mixes and prepares feed for bullocks and feeds them at prescribed time. May repair or change shear of plough as and when required.

ISCO 08 Unit Group Details:

Code 9211
Title Crop Farm Labourers

9211.0200 Labourer, Agriculture

Labourer, Agriculture performs variety of tasks, mostly manual, connected with farm cultivation on remuneration. Settles wages and working hours. Receives allotment of work from Fieldman and collects seeds, equipment, etc. Attends to tasks in field in connection with planting, preparation of soil, sowing, weeding, hoeing, pruning, harvesting, plucking fruits or flowers, threshing, drying, winnowing, bagging, storing, etc. Consults Fieldman in different assignments as and when necessary. Hands over equipment at close of day.

ISCO 08 Unit Group Details:

Code 9211

Title Crop Farm Labourers

9211.0300 Picker (Tobacco)

Picker (Tobacco) removes stems, off-colour tobacco, and foreign material, such as strings, dirt, and paper from tobacco as it moves along conveyor to ensure clean and uniform product. May drop pickings into bags attached to conveyor frame, according to whether pickings are dark tobacco, green tobacco, tobacco with stems, or foreign material.

ISCO 08 Unit Group Details:

Code 9211
Title Crop Farm Labourers

9211.9900 Farm Hands and Labourers, Other

Farm Hands and Labourers, Other include workers who help with farm work by performing a variety of simple farming tasks not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9211
Title Crop Farm Labourers

Family 9212

Livestock Farm Labourers

Livestock Farm Labourers perform simple and routine tasks in farm production of animals, including poultry and insects.

Family 9213

Mixed Crop and Livestock Farm Labourers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Mixed Crop and Livestock Farm Labourers perform simple and routine tasks in farm production of both crops and animals.

Family 9214

Garden and Horticultural Labourers

Garden and Horticultural Labourers perform simple and routine tasks in operations to cultivate and maintain trees, shrubs, flowers and other plants in parks and private gardens, to produce saplings, bulbs and seeds, or grow vegetables and flowers by intensive cultivation techniques.

Family 9215

Forestry Labourers

Forestry Labourers perform simple and routine tasks to cultivate and maintain natural and plantation forests, and logging, felling and sawing trees.

9215.0100

Labourer, Plantation

Labourer, Plantation performs various low skilled tasks in connection with preparing land, planting, weeding, spraying of insecticide, picking tea leaves, plucking coffee seeds, etc. and may be designated according to nature of work performed such as: Nursery worker prepares beds in prescribed manner and germinates tea seeds, rubber seeds etc. Prunes such as sowing, shootings, weeds out wild growth and performs related tasks. Planting worker prepares land for cultivating tea plants, digs holes for planting germinated seeds and plants shade trees to protect

tea and coffee plants from heat. Weeding worker weeds out wild growth around tea, rubber and coffee plants using spade, sickle, knife, etc. Spraying worker mixes pesticides such as cuprosona, fungi copper, and D.D.T. with water and sprays it on plants, using spraying machine. Picker; Plucker (Coffee, Tea) picks ripe coffee berries or tea leaves from plants by hand, cuts off protruding branches of bush using tipping knife and performs variety of low skilled tasks on tea or coffee estates.

ISCO 08 Unit Group Details:

Code	9215
Title	Forestry Labourers

9215.0200

Tappers

Tappers, make cuts in trunk of trees using special knives for collecting saps, juices, resins, or gums, etc.

ISCO 08 Unit Group Details:

Code	9216
Title	Fishery and Aquaculture Laboratories

9215.9900

Plantation Labourers and Related Workers, Other

Plantation Labourers and Related Workers, other include all those plantation labourers and related workers not elsewhere classified.

ISCO 08 Unit Group Details:

Code	9215
Title	Forestry Labourers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Family 9216

Fishery and Aquaculture Labourers

Fishery and Aquaculture Labourers, perform simple and routine tasks to cultivate, catch and harvest fish and seafood in aquaculture and inland, coastal and deep sea fishing operations.

Sub Division 93

Labourers in Mining, Construction, Manufacturing and Transport

Labourers in Mining, Construction, Manufacturing and Transport perform simple and routine manual tasks in mining, quarrying, civil engineering, building, manufacturing, transport and storage operations, and operate human powered and animal drawn vehicles and machinery.

Tasks performed by workers in this sub-major group usually include: digging holes and spreading excavated materials, sand, soil, and gravel using hand-held tools; sorting, loading, unloading, moving stacking and storing materials, equipment, products, supplies, baggage and cargo by hand; cleaning machinery, equipment, tools and work sites; packing and unpacking material and products and filling containers and shelves with products by hand; operating human powered and animal drawn vehicles and machinery.

Occupations in this Sub Division are classified into the following Groups:

931	Mining and Construction Labourers
932	Manufacturing Labourers
933	Transport and Storage Labourers

Group 931

Mining and Construction Labourers

Mining and construction labourers perform simple and routine manual tasks in mining, quarrying, civil engineering and building operations.

Occupations in this Group are classified into the following Families:

9311 Mining and Quarrying Labourers

9312 Civil Engineering Labourers

9313 Building Construction Labourers

Family 9311

Mining and Quarrying Labourers

Mining and Quarrying Labourers perform routine tasks in mining and quarrying operations.

9311.0100

Mines, Quarrymen, Related Workers

Miners, Quarrymen and Related Workers works in mining, quarrying, well drilling and other related activities. Dig, drill, excavate, load ore, coal or rocks in to cars. Perform work requiring simple and routine tasks connected with mining and quarrying.

ISCO 08 Unit Group Details:

Code 9311

Title Mining and Quarrying Labourers

9311.0101

Mazdoor/Helper

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Mazdoor or Helpers in mines perform a variety of duties. A mining helper could be doing any of the following on a regular work day-transporting material and equipment within mine, cleaning the area to build temporary roads, loading and unloading, reject handling, spotting, erecting or dismantling scaffolding at a construction site on the mine, bricklaying, clean and maintain the mining premises, assist trained operators in installing, dismantling or dispatch of any machinery. In addition to this a mazdoor must be safety conscious ensuring everybody's safety and others around him in all tasks he is asked to perform.

Qualification Pack Details:

QP NOS Reference	MIN/Q0408
QP NOS Name	Mazdoor/Helper
NSQF Level	1

ISCO 08 Unit Group Details:

Code	9311
Title	Mining and Quarrying Labourers

9311.0200

Digger (Mine and Quarry)

Digger works in underground or surface mine, pit, or quarry, or at tipple, mill, or preparation plant, performing any combination of following tasks: Cleans working areas and haulage tracks; digs and maintains drainage ditches; or shovels muck, ore, coal, or rock aside, into cars, or onto conveyors. Pushes loaded mine cars from working face to haulage road and attaches cars together for transportation to surface. Positions and adjusts bits on drill shaft and places cables, jacks, roof bolts, and related equipment in specified locations. Trims protrusions from walls and roofs of underground passageways and rooms. Strips (cleans) residue of rock and dirt from exposed coal, ore, or rock

formations. Loads, separates, or sorts materials at working face, using shovel or wheelbarrow. Throws calcium or salt around interiors of railroad cars to prevent coal or ore from freezing to cars during winter.

ISCO 08 Unit Group Details:

Code	9311
Title	Mining and Quarrying Labourers

9311.9900

Mining and Quarrying Labourers, Other

Mining and Quarrying Labourers, Other include workers who perform simple and routine tasks in connection with mining or quarrying not elsewhere classified.

ISCO 08 Unit Group Details:

Code	9311
Title	Mining and Quarrying Labourers

Family 9312

Civil Engineering Labourers

Civil Engineering Labourers perform routine tasks in connection with the building and maintenance of roads, railways, dams and other civil engineering projects.

9312.0100

Labourer, Other

Labourer performs simple manual tasks of routine nature requiring physical strength, and are engaged in lifting and carrying loads, civil construction works, cleaning and sweeping machine rooms, sprinkling water on khas tattis, etc. and include those not elsewhere classified: Labourers, Construction and Maintenance Workers

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Labourers, Road Construction and Maintenance Labourers, Telephone, Telegraph lines and Cables Waterman, Khas Tatti. Mazdoor, Textile

ISCO 08 Unit Group Details:

Code 9312

Title Civil Engineering Labourers

9312.0200

Track Repairer (Rail Transport)

Track Repairer (Rail Transport) installs and repairs railroad track on specified territory of railroad, using portable grinder, spike puller, spike driver, and tie adz, to grind ends of rails, remove old spikes, drive new spikes, cut ties to fit fishplates, and perform related maintenance, working as member of crew: Operates single-or multiple-head spike puller to pull old spikes from tie. Raises rail, using hydraulic jack, to facilitate removal of old tie and installation of new tie. Operates tie-adzing machine to cut portion of tie so that tie plate can be inserted to hold rail. Drills holes through rails, tie plates, and fishplates for insertion of bolts and spike, using power drill. Operates single-or multiple-head spike driving machine to drive spike into tie and secure rail. Operates track-wrench machine to tighten or loosen bolts at joints that hold ends of rails together. Operates rail saw to cut rails to specified lengths. Operates portable grinder to grind worn ends of rails. Sprays ties, fishplates, and joints with oil to protect them from weather. May paint railroad signs, such as speed limits and gate-crossing warnings. May oversee workers and act as section leader.

ISCO 08 Unit Group Details:

Code 9312

Title Civil Engineering Labourers

9312.9900

Construction and Maintenance Labourers, Other

Construction and Maintenance Labourers, Other include workers who perform simple and routine tasks in connection with the building and maintenance of roads, dams and similar constructions not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9312

Title Civil Engineering Labourers

Family 9313 Building Construction Labourers

Building Construction Labourers perform routine tasks in connection with building construction and demolition work.

9313.0100

Well Digger Helper

Well Digger Helper assists Well Digger in digging well by hauling and emptying excavated material and performing other miscellaneous tasks. Carries bricks, lays them in order and soaks them with water before use. Digs well by spade and bails out mud in basket. Lays tripod structure and prepares mortar as directed. Assists in setting earthen or cement rings in creating pressure and lowering outer constructed wall into dug space of well. Keeps bullocks on move to pull mud, bucket out of well through string and attends to other tasks as directed.

ISCO 08 Unit Group Details:

Code 9313

Title Building Construction Labourers

9313.0201

Helper Bar Bender and Fixer

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Helper Bar Bender and Fixer needs to support the Assistant Bar Bender and Steel Fixer and Bar Bender and Steel Fixer which are at level-2 and level-3 in semi-skilled and skilled category for carrying out the related works such as selecting, straightening, cutting, shifting of materials, handling tools, tackles and housekeeping with safety. The responsibilities include to identify types of bars and size, straighten, cut, tying steel cages/reinforcements using hand tools. Follow the Plan for storage, transportation and fixing the reinforcement in position. Should be able to understand the size and shape of simple rings and links dimension and make manually with guidance a few shapes, along with the knowledge about the environment, health, safety and general awareness of related trades.

Qualification Pack Details:

QP NOS Reference	CON/Q0201
QP NOS Name	Helper Bar Bender and Fixer
NSQF Level	1

ISCO 08 Unit Group Details:

Code	9313
Title	Building Construction Labourers

9313.0301

Helper Mason

Helper Mason needs to support Assistant Mason and Mason which are at level-2 and level-3 in semi-skilled and skilled category for carrying out the related works such as shifting of materials, handling tools, tackles and housekeeping. The responsibilities include site development and clearance, provide support for laying of bricks and blocks, mortar and cement concrete mixing, rendering coat plastering, help in setting and layout, knowing importance of

scaffolding and have the basic knowledge in the environment, health, safety pertaining to the trade.

Qualification Pack Details:

QP NOS Reference	CON/Q0101
QP NOS Name	Helper Mason
NSQF Level	1

ISCO 08 Unit Group Details:

Code	9313
Title	Building Construction Labourers

9313.0401

Helper Carpenter-Shuttering and Scaffolding

Helper Carpenter-Shuttering and Scaffolding needs to support and help the Assistant Shuttering Carpenter (Level-2), Assistant Scaffolder (Level-2) in semi-skilled categories for carrying out the related works such as shifting of material, handling of tools, preparation job site and housekeeping. A Helper Carpenter provide support in making, assembling, erecting and dismantling all types of conventional formwork and scaffolding arrangements and systems. The Helper is expected to know basics of carpentry and also about the system formwork and shuttering.

Qualification Pack Details:

QP NOS Reference	CON/Q0301
QP NOS Name	Helper Carpenter-Shuttering and Scaffolding
NSQF Level	1

ISCO 08 Unit Group Details:

Code	9313
Title	Building Construction Labourers

9313.0501

Helper Electrician

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Helper Electrician needs to work as helper and perform task under continuous instruction and close supervision of Assistant Electrician level-2 and above. He is expected to shift and store materials, handle tools and tackles, preparatory works of materials and surfaces, assistance in wall chasing, conduit fixing, cable laying and other allied electrical works and relevant housekeeping. He should have the basic knowledge in the environment, health and safety aspects relevant to the trade.

Qualification Pack Details:

QP NOS Reference CON/Q0601
QP NOS Name Helper Electrician
NSQF Level 1

ISCO 08 Unit Group Details:

Code
Title

9313.0601 **Helper Laboratory and Field Technician**

Helper Laboratory and Field Technician provides support to the Assistant Lab Technician/Laboratory In Charge for organizing, selecting, sifting and carrying the materials, collection of samples and finally to maintain and upkeep the laboratory premises, equipment and instruments.

Qualification Pack Details:

QP NOS Reference CON/Q0401
QP NOS Name Helper Laboratory and Field Technician
NSQF Level 1

ISCO 08 Unit Group Details:

Code 9313

Title Building Construction Labourers

9313.0701

Helper Painter and Decorator

Helper Painter and Decorator needs to work as helper category tradesman and perform tasks under continuous and close supervision of Assistant Painter and Decorator Level-2 is expected to handle shifting and storing of materials, handling tools and tackles relevant to painting including site development and clearance, support in identification and preparation of paints and surfaces, mixing of colours and paints and the housekeeping activities. Should ensure trade specific compliance to environment, health and safety aspects.

Qualification Pack Details:

QP NOS Reference CON/Q0501
QP NOS Name Helper Painter and Decorator
NSQF Level 1

ISCO 08 Unit Group Details:

Code
Title

9313.9900 **Building Construction Labourers, Other**

Building Construction Labourers, Other include those who perform simple and routine tasks in connection with various aspects of building construction work not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9313
Title Building Construction Labourers

Group 932

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Manufacturing Labourers

Manufacturing Labourers perform a variety of manual tasks in manufacturing, assist the work of Machine Operators and assemblers, and undertake product-sorting and hand-assembling of components.

Occupations in this Group are classified into the following Families:

9321 Hand Packers
9329 Manufacturing Labourers, Not Elsewhere Classified

Family 9321 Hand Packers

Hand Packers weigh, pack and label materials and products by hand.

9321.0101 Packer, Hand

Packer, Hand; Carton Filler; Boxer; Case Packer packs material and products by hand in bags, barrels, baskets, boxes, cartons, and crates for purpose of storage or transport performing any combination of following duties. Examines product for brittleness, fragility, moisture and other characteristics. Collects packaging containers and cleans them. Lines and pads crates. Assembles cartons from flattened state. Wraps protective material around product. Weighs containers and adjusts quantity. Places or pours product into containers or fills containers from spout or chute. Inserts excelsior, shredded paper, wood wool or paper trays on top of product. Sews bag, fits lids on container, nails, wires or otherwise closes containers. Stamps grade, brand, and date

of packing on containers. Visually inspects materials, products and containers at each step of packaging process. May be designated according to whether high production or small lot packaging as PACKAGING-LINE ATTENDANT, FANCY PACKER or according to goods packed, machines handled or industry in which employed such as PACKER BAGS; PACKER BIDI; PACKER, BISCUITS; PACKER, CHEMICAL PRODUCTS; PACKER, CIGAR; PACKER, GRAIN; PACKER, MATCH BOXES; BOTTLING MACHINE OPERATOR; SEALING MACHINE OPERATOR, BALE PRESSER.

Qualification Pack Details:

QP NOS Reference	ASC/Q 6102
QP NOS Name	Packer/Packing
	Assistant/Packing
	Executive

NSQF Level 2

ISCO 08 Unit Group Details:

Code	9321
Title	Hand Packers

9321.0102 Packager and Despatcher

The individual at work uses computers, design or planto packs the faceted and/or polished gemstones, ready or dispatch.

Qualification Pack Details:

QP NOS Reference	G&J/Q7010
QP NOS Name	Packager and Despatcher
NSQF Level	2

ISCO 08 Unit Group Details:

Code
Title

9321.0201

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Labeller

Labeller affixes labels indicating information such as size, colour grade or process code, on merchandise, material, products, containers or bottles by hand or machine. Collects appropriate labels markings, descriptions or designs to be affixed on container. Lines articles and containers to be labelled. Inspects items and affixes or pastes labels at appropriate places using hand. May use labelling machine. May be designated according to product, material or container labelled as LABELLER, CIGAR; LABELLER, BOTTLES; LABELLER, CARRIAGE; LABELLER, LUGGAGE; LABELLER, WAGGON.

Qualification Pack Details:

QP NOS Reference G&J/Q8401
QP NOS Name Labeller
NSQF Level 3

ISCO 08 Unit Group Details:

Code 9321
Title Hand Packers

9321.0205

Tagger and Labeller

Tagger and Labeller is also known as 'Dispatcher' or 'Packager', the Tagger and Labeller packages the manufactured jewellery, puts tag and label on the it and sends to sales for dispatch. The individual at work checks the products to be dispatched against design, tags the jewellery, packs it, labels the packet, records and sends for dispatch to customer.

Qualification Pack Details:

QP NOS Reference	G&J/Q1010
QP NOS Name	Tagger and Labeller
NSQF Level	5

ISCO 08 Unit Group Details:

Code
Title

9321.0300

Stenciler

Stenciler marks size, lot number, contents, or other identifying information or symbols on containers or directly on article by placing stencil on container or article and rubbing ink or paint brush across open lettering, or by spraying paint on it. Lines and inspects containers or articles to be stencilled. Selects appropriate stencil and places stencil on container, package or box rubs ink using hand brush or sprays paint across cut-out letterings or design. May mix paints or lacquers. May be designated according to type of container stencilled as CARTON STENCILLER; DRUM STENCILLER; SACK STENCILLER.

ISCO 08 Unit Group Details:

Code 9321
Title Hand Packers

9321.0400

Stamper, Hand

Stamper, Hand impresses stamp on bales, bags, boxes or other containers to indicate nature of contents. Collects appropriate stamp-impression. Lines and inspects article; places stamp on ink or paint pad and presses stamp on article to leave mark or impression. May use stamping machine.

ISCO 08 Unit Group Details:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Code 9321
Title Hand Packers

9321.1101 Weigher

Weigher; Scaleman weighs materials and products to determine conformance to weight specifications for use in production processes or for purpose of trade and commerce using balance, platform or floor scales. Checks and adjusts scale for correct balance; places material on scale and adds or removes portions to obtain specified weight; weighs product to ascertain standard or measures out specified quantities for production processes or for commerce and trade. May record amount of weight or note weights on material or ticket. May perform, mixing and blending of ingredients. May be designated according to material and product weighed as COAL WEIGHER; COMMERCIAL GOODS WEIGHER; GRAIN WEIGHER; PARCEL WEIGHER; DYESTUFF WEIGHER; INGOT WEIGHER (Iron and steel) or scale used as BALANCE-TANK OPERATOR (Ore Dressing, Smelt and refining) or purpose of weighing as CHARGE WEIGHER (Ore Dress; smelt and refining).

Issue and Return In charge use the computer to note all the details of a diamond weight, shape, stage of processing, person issued to or returned from, before issuing it to a worker for processing. Bar-coding and scanning process may also be used.

Qualification Pack Details:

QP NOS Reference G&J/Q4303
QP NOS Name Issuing and Return
In Charge
NSQF Level 2

ISCO 08 Unit Group Details:

Code
Title

9321.1103 Diamond Bagger and Flueter

Diamond bagger and flueter counts diamonds and gemstones and puts into a bag as per the product requirement for any given jewellery design.

Qualification Pack Details:

QP NOS Reference G&J/Q2505
QP NOS Name Diamond Bagger
and Flueter
NSQF Level 4

ISCO 08 Unit Group Details:

Code
Title

9321.1200 Counter

Counter counts number of units of raw materials, products or other articles received, transferred or produced. Observes and counts material using fingers to verify receipt or dispatch of items on requisition or invoice or make

Qualification Pack Details:

QP NOS Reference G&J/Q4303
QP NOS Name Weigher
NSQF Level 2

ISCO 08 Unit Group Details:

Code 9321
Title Hand Packers

9321.1102 Issuing and Return In charge

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

into unit of specified quantity and number. May mark identifying codes, figures or letters on articles. May weigh item. May pack produce. May record number and kind of defects on unsatisfactory units for quality control purposes. May issue receipts. May be designated according to item counted BIDI COUNTER, POST CARD COUNTER, CURRENCY COUNTER, COUNTER, PAPER SHEETS.

ISCO 08 Unit Group Details:

Code	9321
Title	Hand Packers

9321.1300

Container Washer, Machine

Container Washer, Machine tends machine that cleans and sterilizes containers, such as barrels, fruit juice bottles, milk cans, and baking pans: Moves controls to fill washing and sterilizing tanks with water and steam, and to regulate temperature in cleaning tank. Dumps specified amounts of chemicals into cleaning tank. Loads containers on conveyor that carries containers through cleaning and sterilizing operations. Examines containers for cleanliness and defects, such as dents and cracks. Cleans and lubricates equipment. May manually clean containers prior to machine cleaning, using sponge or brush.

ISCO 08 Unit Group Details:

Code	9321
Title	Hand Packers

9321.1401

Machining Assistant or Helper

Machining Assistant or Helper is responsible for small time routine jobs like cleaning, washing, fetching and holding tool for the operators, loading and unloading of work pieces on the machine setup, bringing raw material and spare parts from the stores etc.

Qualification Pack Details:

QP NOS Reference	ASC/Q 3502
QP NOS Name	Machining Assistant or Helper L 2
NSQF Level	2

ISCO 08 Unit Group Details:

Code	9321
Title	Hand Packers

9321.9900

Hand Packers, Others

Hand Packers and Other Manufacturing Labourers, Other include workers who pack materials or products by hand and perform a variety of simple routine tasks connected with manufacturing not elsewhere classified.

ISCO 08 Unit Group Details:

Code	9321
Title	Hand Packers

Family 9329

Manufacturing Labourers, Not Elsewhere Classified

Manufacturing Labourers not elsewhere classified assist the work of Machine Operators and Assemblers and perform a variety of manual tasks in manufacturing, excluding packing and labelling finished products.

9329.0100

Khatedar, Salt Production

Khatedar, Salt Production; Field Assistant controls raking operation in set of salt pans (called Khata) and ensures collection and stacking of salt. Patrols salt-bed reservoirs to check raking of scum off surface of brine. Directs Salt Pan/Reclamation Workers in removing of dirt, trash and other refuge from salt-beds and in scooping out of precipitated salt for bagging. May supervise work of bagging and transporting of salt bags to warehouse.

ISCO 08 Unit Group Details:

Code 9329

Title Manufacturing Labourers Not Elsewhere Classified

9329.0200

Mukadam, Salt Production

Mukadam, Salt Production directs preparation of beds for collection of sea-water for salt production. Visits site and marks area for salt-beds. Directs assistants in levelling of ground, raising or repairing of bunds and cutting of trenches to let water into bed; cleans rock, clay and other refuse from bed surface. Lets in sea water to fill reservoir to determined level and allows it to evaporate through solar heat. May supervise raking of salt crystals and other operations after salt crystals are formed.

ISCO 08 Unit Group Details:

Code 9329

Title Manufacturing Labourers Not Elsewhere Classified

9329.0300

Salt Reclamation Worker

Salt Reclamation Workers; Salt Pan Worker, Agaria; Kharwa performs variety of manual tasks in production of salt. Digs and levels ground; raises bund around marked area to form beds of desired sizes; repairs bunds, ridges, crystallizers, platforms, sifting ground, storage ground etc. Regulates and controls brine-feed into crystallizers; ensures formation of proper size of crystals by solar evaporation; removes rock and other refuse from beds; fills bed with sea-water; plugs breaches or holes in bund to prevent leakage of water. Rakes surface of salt-layers and scrapes and collects salt at ridges when ready; lifts salt to drying and sifting ground, and thence to storage grounds. Builds heaps of uniform size of specified dimensions and shape and covers them with grass leaves, etc. from protection against dust, rain, etc. May bag salt or transport salt bags to warehouse.

ISCO 08 Unit Group Details:

Code 9329

Title Manufacturing Labourers Not Elsewhere Classified

9329.0400

Checker

Checker verifies quantity, quality, condition, value and type of material, product, purchased, sold or produced against records, reports or specifications. Examines articles for defects in making or flows in material and returns defective work for correction or as rejects; checks packages, bottles etc., for proper markings and labels according to instructions; checks and examines incoming and outgoing goods and materials against lists and delivery notes for quality, quantity or number and reports or records defects or deficiencies.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

May sort data or items into predetermined sequence, groups, quantity. May record items verified. May be designated according to material handled, industry in which employed or type of establishment worked as CURRENCY CHECKER; CARGO CHECKER; WAREHOUSE CHECKER; CHECKER, POTTERY WARE; CHECKER, GARMENTS.

ISCO 08 Unit Group Details:

Code 9329

Title Manufacturing Labourers Not Elsewhere Classified

9329.0500

Tester

Tester makes routine examination of material, goods and products for quality, shape, size or functioning, visually or by means of measuring aids or by simple operation with testing apparatus. Examines articles, products visually or by means of simple instruments or devices for defects and records reports or marks findings. Tests pipe connections and fittings for strength, gas and water tightness with pressure gauze or compressed air. Examines pottery wares for shape, size, functioning etc., by means of rule, gauzes, or instruments or by simple operation with testing apparatus; compares test results with specifications, reports and records defects to improve and control quality of products. May be designated according article, material or product tested as Tester, Gas Fittings; Tester, Pottery, Warehouse; Tester, Rubber Goods.

ISCO 08 Unit Group Details:

Code 9329

Title Manufacturing Labourers Not Elsewhere Classified

9329.0600

Sorter

Sorter sorts material and products for quality, condition, grade, size or colour according to specification or standard by visual examination, measuring or simple mechanical aids. Picks up material or products by hand and examines them by sight and touch for defects such as discolouring, quality, cracks and sorts them according to class, grades, sizes, quality, colour and other characteristics. Discards inferior or defective items and foreign matter. Mats, counts, tags, bunches or places together lots of identical or similar products in racks, packing boxes, containers, baskets, crates for storages, shipment or other processes. Records numbers, sizes, quantities of sorted materials and products for identification. May affix identifying information on sorted material and products. May be designated according to product sorted as WOOL SORTER, HAIR SORTER, BRICK SORTER; ROOFING-TILE SORTER, SEWER PIPE SORTER, or according to work performed APPLE SORTER, POTATO GRADER; COCOON SORTER etc.

ISCO 08 Unit Group Details:

Code 9329

Title Manufacturing Labourers Not Elsewhere Classified

9329.0701

Accessory Fitter

Accessory Fitter is responsible for installing and fitting vehicle accessories including vehicle exterior, interior, media and entertainment and security related accessories depending on vehicle type and model.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Qualification Pack Details:

QP NOS Reference ASC/Q1102
QP NOS Name Accessory Fitter
NSQF Level 4

9333 Freight Handlers

9334 Shelf Fillers

ISCO 08 Unit Group Details:

Code 9329
Title Manufacturing Labourers Not Elsewhere Classified

9329.0801

Parts Picker

Parts Picker needs to issue different parts and assemblies according to production and shipping schedules picking these up from Stores/warehouse.

Qualification Pack Details:

QP NOS Reference ASC/Q6103
QP NOS Name Parts Picker Level 3
NSQF Level 3

ISCO 08 Unit Group Details:

Code 9329
Title Manufacturing Labourers Not Elsewhere Classified

Group 933

Transport and Storage Labourers

Transport and Storage Labourers propel cycles and similar vehicles and drive animal-drawn vehicles to transport passengers or goods, drive animal-drawn machinery, handle freight and baggage and stock shelves

Occupations in this Group are classified into the following Families:

9331 Hand and Pedal Vehicle Drivers
9332 Drivers of Animal-Drawn Vehicles and Machinery

Family 9331

Hand and Pedal Vehicle Drivers

Hand or pedal vehicle drivers propel cycles and similar vehicles to transport passengers or goods.

9331.0100

Driver, Cycle Rickshaw

Driver, Cycle Rickshaw drives cycle rickshaw on hire or as paid by employee to transport passengers from one place to another, observing road signals and traffic rules. Drives passengers to destination and helps in loading and unloading luggage. Cleans and oils rickshaw and attends to minor repairs. Settles and collects fare if plying on hire.

ISCO 08 Unit Group Details:

Code 9331
Title Hand and Pedal Vehicle Drivers

9331.0300

Hand Cartman

Hand Cartman pulls or pushes hand cart to transport light goods and materials from one place to another. Loads and unloads goods. May also stack material, make deliveries, collect payments and obtain and issue receipts.

ISCO 08 Unit Group Details:

Code 9331
Title Hand and Pedal Vehicle Drivers

9331.0400

Traffic Hand, Gliding

Traffic Hand, Gliding performs miscellaneous manual tasks in connection with flight of glider at glider station. Pushes glider from hanger to landing or launching spot. Picks it using pegs or pointed stacks and attaches end of wire-rope (which is spread on ground and other end of which is attached to winch-engine) to glider. Removes picketing aids from ground when Pilot, Glider is seated and informs Signalman to signal Winch-engine Operator to operate machine when Pilot, Glider is ready. Pushes glider after landing, to launching spot. May signal Winch-engine Operator, attach glider with aeroplane and clean glider or runway.

ISCO 08 Unit Group Details:

Code 9331

Title Hand and Pedal Vehicle Drivers

9331.0600

Transport Equipment Operators and Drivers, Other

Transport Equipment Operators and Drivers, other include all other workers engaged in driving and operating transport equipment, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9331

Title Hand and Pedal Vehicle Drivers

9331.0700

Transport Service Operator

Transport Service Operator performs variety of routine and low skilled tasks in operating transport services such as

examining bogie wheels and axle boxes, lighting signal lamps before sunset, washing and cleaning coaches at stations, closing and operating railway gates, waking up Train Guards and Engine Drivers at night for duty, fixing gangway for aircraft passengers setting control pole of trams with overhead electric line etc., and are designated according to nature of work performed such as WHEEL MAN; CALL BOY (RAILWAY); LAMP MAN (RAILWAY); CARRIAGE CLEANER; GATE MAN (RAILWAY); POLEMAN TRAM, etc.

ISCO 08 Unit Group Details:

Code 9331

Title Hand and Pedal Vehicle Drivers

9331.9900

Hand Pedal Vehicle Drivers, Other

Hand or Pedal Vehicle Drivers, Other include workers who propel cycles and similar vehicles to transport passengers or goods not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9331

Title Hand and Pedal Vehicle Drivers

Family 9332

Drivers of Animal-Drawn Vehicles and Machinery

Drivers of animal-drawn vehicles and machinery drive animal-drawn vehicles to transport passengers or goods, as well as animal-drawn machinery usually in connection with farming.

9332.0100

Horse Carriage Driver

Horse Carriage Driver drives two to four wheeled carriage pulled by one or more

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

horses to transport passengers from one place to another, on hire or as paid employee. Harnesses and hitches horses to carriage. Drives carriage observing road signals and traffic rules. Loads and unloads baggage. Settles and collects fare from passengers when plying on hire. May be known as TONGA, EKKA, PHAETON, TAMTAM, BUGGY, OR VICTORIA DRIVER. May groom and feed horses and clean carriage and stable in absence of Stableman.

ISCO 08 Unit Group Details:

Code 9332
Title Drivers of Animal-Drawn Vehicles and Machinery

9332.0200

Cart Driver

Cart Driver drives cart drawn by one or two animals, on hire or as paid employee, to transport men and material from one place to another. Loads and unloads cart. Feeds animals and cleans stables. Settles and collects fares when plying on hire. May stack material, make deliveries, collect payments and obtain and issue receipts.

ISCO 08 Unit Group Details:

Code 9332
Title Drivers of Animal-Drawn Vehicles and Machinery

9332.0300

Mahout

Mahout rides and leads elephant to transport men and material from one place to another. May also train elephant for ceremonial occasions, processions and for specific work, e.g., log felling, lifting, stacking etc. May groom and feed elephant.

ISCO 08 Unit Group Details:

Code 9332
Title Drivers of Animal-Drawn Vehicles and Machinery

9332.0400

Pack Animal Driver

Pack Animal Driver drives animal laden with goods and material to be transported from one place to another. Loads and unloads animals. Drives them walking or riding. Feeds animals and cleans stables.

ISCO 08 Unit Group Details:

Code 9332
Title Drivers of Animal-Drawn Vehicles and Machinery

9332.0500

Supervisor, Animal-Drawn and Manually Operated Transport Equipment

Equipment

Supervisors, Animal Drawn and Manually Operated Transport Equipment, Other include all other workers engaged in supervising, hiring and plying of horse carriages, carts, rickshaws, dolies and other animal drawn and manually operated vehicles and transport equipment, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9332
Title Drivers of Animal-Drawn Vehicles and Machinery

9332.9900

Animal and Animal Drawn Vehicle Drivers, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Animal and Animal Drawn Vehicle Drivers, Other include all other workers engaged in driving other type of animals and animal drawn vehicles, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9332

Title Drivers of Animal-Drawn Vehicles and Machinery

Family 9333

Freight Handlers

Freight handlers carry out tasks such as packing, carrying, loading and unloading furniture and other household items, or loading and unloading ship and aircraft cargoes and other freight, or carrying and stacking goods in various warehouses.

9333.0100

Loader and Unloader

Loaders and Unloaders load and unload cargo and freight in ships, railway waggons, boats, aircraft, motor transport, conveyers, cranes and other animal or hand drawn vehicles, performing such operation as shifting, stacking, counting loads or bundles, and may be designated according to type of freight handled or nature of transport in which engaged, such as: LOADER AIRCRAFT; LOADER FRAGILE AND EXPLOSIVE MATERIALS. LOADER, BULK MATERIALS. LOADER, HEAVY MACHINERY. LOADER, RAILWAY WAGGONS. LOADER, SHIP. LOADER, INLAND WATERCRAFT. LOADER, ROAD TRANSPORT. LOADER, ANIMAL OR HAND DRAWN VEHICLES, etc.

ISCO 08 Unit Group Details:

Code 9333

Title Freight Handlers

9333.0101

Loader/Loading and Unloading Operator

Loader/Loading and Unloading needs to safely load and unload different vehicles, parts, assemblies, components etc. internally to various departments of a manufacturing process and on to the vehicles for dispatch based on requirements.

Qualification Pack Details:

QP NOS Reference ASC/Q 6101

QP NOS Name Loader/Loading and Unloading Operator

NSQF Level 2

ISCO 08 Unit Group Details:

Code 9333

Title Freight Handlers

9333.0201

Warehouse Worker

Warehouse Worker stores the agriculture produce received and transports them to the end-customers on receiving the orders. The person is responsible for receiving, sorting, storing the agricultural produce, keeping records; assist in documenting and organizing for transportation of goods stored to customer locations. Needs to ensure quality and safety of agricultural produce storage in the warehouse.

Qualification Pack Details:

QP NOS Reference AGR/Q7802

QP NOS Name Warehouse Worker

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

NSQF Level 3

ISCO 08 Unit Group Details:

Code 9333
Title Freight Handlers

9333.0202

Loader, Transport Associate/Loader/Unloader

Loader/Unloader in the Logistics industry is also known as Loader, Transport Associate. Individuals in this role need to identify goods based on the product code, unload them from the truck onto the inbound area and move them to the staging area. A similar sequence is done for loading. Their responsibilities include identifying damaged goods and moving goods safely.

Qualification Pack Details:

QP NOS Reference LSC/Q1110
QP NOS Name Loader/Unloader
NSQF Level 2

ISCO 08 Unit Group Details:

Code 9333
Title Freight Handlers

9333.9900

Freight Handlers, Other

Freight Handlers, Other include all other freight handlers who carry out tasks such as packing, carrying, loading and unloading furniture and other household items, or loading and unloading ship and aircraft cargoes and other freight, or carrying and stacking goods in various warehouses not elsewhere classified.
DO9-1 9 DO9-2 0 DOX-1 WORKERS NOT CLASSIFIED BY OCCUPATIONS Workers classified in this Division are those persons seeking employment who have not received any professional, technical or

vocational training or work experience; persons reporting occupations that cannot be identified; persons reporting occupations not sufficiently described to permit classification and workers not reporting any occupation. Excluded are those persons seeking employment only in specific occupations.

ISCO 08 Unit Group Details:

Code 9333
Title Freight Handlers

Family 9334

Shelf Fillers

Shelf Fillers stock shelves and display areas and keep stock clean and in order in supermarkets and other retail and wholesale shops.

Sub Division 94

Food Preparation Assistants

Food Preparation Assistants prepare and cook to order a small variety of pre-cooked food or beverages, clear tables, clean kitchen areas and wash dishes.

Tasks performed by workers in this sub major group usually include: preparing simple or pre-prepared foods and beverages such as sandwiches, pizzas, fish and chips, salads, and coffee; washing, cutting, measuring and mixing foods for cooking; operating cooking equipment such as grills, microwaves and deep-fat fryers; cleaning kitchens, food preparation areas and service areas; cleaning cooking and general utensils used in kitchens and restaurants.

Occupations in this Sub Division are classified into the following Groups:

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

941 Food Preparation Assistants

Group 941 Food Preparation Assistants

Food Preparation Assistants prepare and cook to order small variety of pre-cooked food or beverages, clear tables, clean kitchen areas and wash dishes.

Occupations in this Group are classified into the following Families:

9411 Fast Food Preparers

9412 Kitchen Helpers

Family 9411 Fast Food Preparers

Fast Food Preparers prepare and cook to order a limited range of foods or beverages that involve simple preparation processes and a small number of ingredients. They may take orders from customers and serve at counters or tables.

Family 9412 Kitchen Helpers

Kitchen Helpers clear tables, clean kitchen areas, wash dishes, preparing ingredients and perform other duties to assist workers who prepare or serve food and beverages.

9412.0100 Kitchen Helper

Kitchen Helper performs any combination of following duties to maintain kitchen work areas and restaurant equipment and utensils in clean and orderly condition: Sweeps and mops floors. Washes worktables, walls, refrigerators, and meat blocks. Segregates and removes trash and

garbage and places it in designated containers. Steam-cleans or hoses-out garbage cans. Sorts bottles, and breaks disposable ones in bottle-crushing machine. Washes pots, pans, and trays by hand. Scrapes food from dirty dishes and washes them by hand or places them in racks or on conveyor to dishwashing machine. Polishes silver, using burnishing-machine tumbler, chemical dip, buffering wheel, and hand cloth. Transfers supplies and equipment between storage and work areas by hand or by use of hand pulled trolley. Sets up banquet tables. Washes and peels vegetables, using knife or peeling machine. Loads or unloads trucks picking up or delivering supplies and food

ISCO 08 Unit Group Details:

Code 9412
Title Kitchen Helpers

Sub Division 95 Street and Related Sales and Services Workers

Street and Related Sales and Service Workers provide and sell goods, excluding food for immediate consumption, and provide a variety of services on streets and in other public places such as stations. Tasks include: buying or making various items for sale; loading and unloading items for sale and transporting them; obtaining the materials necessary to perform services; approaching people on the street to offer goods or services; cleaning and polishing shoes; cleaning and polishing car windows; running errands; assisting drivers to find a parking place and ensuring car is not damaged during driver's absence; handing out leaflets and free newspapers; receiving immediate payment.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Occupations in this Sub Division are classified into the following Groups:

951	Street and Related Service Workers
952	Street Vendors (excluding Food)

Group 951 **Street and Related Service Workers**

Street and related service workers provide a variety of services on streets and in other public places, including cleaning shoes, washing car windows, running errands, looking after property, and providing other on-the-spot street services.

Occupations in this Group are classified into the following Families:

9510	Street and Related Service Workers
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Family 9510 **Street and Related Service Workers**

Street and Related Service Workers provide a variety of services on streets and in other public places, including cleaning shoes, washing car windows, running errands, handing out leaflets, looking after property, and providing other services on-the-spot.

9510.0100 **Boot Polisher**

Boot Polisher cleans and polishes shoes. Brushes shoes to remove dust; applies cleaning agents like soap or other chemical solution for removing dirt and spots from soiled shoes using sponge or

cloth; applies polish, colour or chalk-powder (dry or mixed with liquid) with finger, brush or soft cloth on leather, canvas or other shoes; rubs surface of leather-shoes with soft brush to make them shine; applies chalk or solution on canvas or other non-leather shoes and allows them to dry; finishes leather shoes by further rubbing them with soft cloth or flannel piece; finishes non-leather shoes by retouching with appropriate cleaning matter and by removing superfluous coat and spots.

ISCO 08 Unit Group Details:

Code 9510
Title Street and Related Service Workers

9510.0200

Bill Poster

Billposter attaches advertising posters on surfaces, such as walls and billboards, using hand tools: Removes old poster, using scraping tool. Mixes paste-powder with water to form paste. Smears paste on wall or billboard surface, using brush. Aligns poster sections on billboard and smoothens sections, using long-handled brush. Staples or tacks posters on fences, walls, or poles. Climbs ladder to work from deck at bottom of elevated billboard. May work from scaffolding.

ISCO 08 Unit Group Details:

Code 9510
Title Street and Related Service Workers

9510.9900

Shoe Cleaning and Other Street Services Elementary Occupations, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Shoe Cleaning and Other Street Services Elementary Occupations, Other include workers engaged in activities such as cleaning shoe, washing car windows, or running errands and providing various on the spot street services, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9510
Title Street and Related Service Workers

Group 952

Street Vendors (excluding Food)

Street vendors (excluding food) sell a usually limited range of goods (excluding food for immediate consumption) in streets and public places such as stations, cinemas or theatres.

Occupations in this Group are classified into the following Families:

9520 Street Vendors (excluding Food)

Family 9520

Street Vendors (excluding Food)

Street vendors (excluding food) sell a usually limited range of goods (excluding food for immediate consumption) in streets and public places such as stations, cinemas or theatres.

9520.0100

Hawker

Hawker; Peddler; Street Vendor; Pheriwala sells articles of daily utility and general merchandise such as vegetables, sweets, cloth, utensils, toys, etc. on footpaths or by going from door to door. Purchases goods from wholesale market

according to his needs, and capital (money) available. Loads them in basket, or on pushcart, wheel-barrow or tricycle and moves in selected areas to effect sales. Announces loudly regarding the goods or articles on sale and their prices to attract customers. Attends to customers and effects sale by measuring, weighing or counting, as necessary. May also display goods or articles of sale on foot-path and effect sales. May purchase goods in lot, in auction or other sale. May prepare and sell his own products and may operate means of conveyance. May work on salary or commission basis or both.

ISCO 08 Unit Group Details:

Code 9520
Title Street Vendors (excluding Food)

9520.9900

Street Vendors, Non Food Products, Other

Street Vendors Non Food Products, Other include workers who sell various goods in streets and public places such as stations, cinemas or theatres not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9520
Title Street Vendors (excluding Food)

Sub Division 96

Refuse Workers and Other Elementary Workers

Refuse workers and other elementary workers collect garbage from buildings, yards, streets and other public places or keep streets and other public places or perform odd jobs for private households or establishments.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Tasks include-collecting, loading and unloading garbage; sweeping streets, parks and other public places; chopping firewood; carrying water; beating dust out of carpets and performing other odd-job tasks.

Occupations in this Sub Division are classified into the following Groups:

961	Refuse Workers
962	Other Elementary Workers

Group 961

Refuse Workers

Refuse workers collect, process and recycle garbage from buildings, yards, streets and other public places, or keep streets and other public places clean.

Occupations in this Group are classified into the following Families:

9611	Garbage and Recycling Collectors
9612	Refuse Sorters
9613	Sweepers and Related Labourers

Family 9611

Garbage and Recycling Collectors

Garbage collectors collect and remove rubbish and items for recycling from buildings, yards, streets and other places.

9611.0100

Garbage Collector (Motor Transport)

Garbage Collector (Motor Transport) collects garbage or refuse by manual scoop or mechanised scoop. Loads garbage on the truck and transports on

designated route within municipality area to dump yard. Dumps garbage/refuse manually or through dumper truck in the dump yard. May ignite fire, spray pesticides or chemical solutions on the garbage to prevent bad odours.

ISCO 08 Unit Group Details:

Code 9611

Title Garbage and Recycling Collectors

9611.0201

E-Waste Collector

E-Waste Collector is responsible for collecting e-waste from retailers, repair shops and other unorganized stakeholders. Also responsible for promoting the importance of e-waste management and ill effects of improper handling of the e-waste and then collecting required information. The responsibility also encompasses the transportation of the collected e-waste to the central warehouse by packaging the e-waste, labelling and maintaining the log record.

Qualification Pack Details:

QP NOS Reference TEL/Q2400

QP NOS Name E Waste Collector

NSQF Level 3

ISCO 08 Unit Group Details:

Code 9611

Title Garbage and Recycling Collectors

9611.9900

Garbage Collectors, Other

Garbage Collectors, Other include workers who collect and remove garbage from buildings, yards, streets and other public places not elsewhere classified.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

ISCO 08 Unit Group Details:

Code 9611

Title Garbage and Recycling Collectors

Family 9612

Refuse Sorters

Refuse Sorters identify, collect and sort discarded items suitable for recycling at dump sites and recycling enterprises or in buildings, streets and other public places.

Family 9613

Sweepers and Related Labourers

Sweepers and related labourers sweep and clean streets, parks, airports, stations and other public places.

9613.0300

Sweeper, Dry

Sweeper, Dry cleans, sweeps and scrubs buildings, streets, parks, etc. and removes garbage. Sweeps with broom or brush floors of buildings, roads, parks, etc. Removes dust and garbage in basket to dustbin. Scrubs floor with cloth, wet in phenyl and water to remove fine dust. May clean carpets and rugs with brush and dust furniture and fixtures. May prepare the broom. May dump garbage in cart and carry garbage in hand cart or in animal driven cart to the dumping ground.

ISCO 08 Unit Group Details:

Code 9613

Title Sweepers and Related Labourers

9613.0400

Sweeper, Wet

Sweeper, Wet; Scavenger cleans and washes bathrooms, lavatories drains etc. and removes night-soil. Sweeps and washes floor of bath-rooms, lavatories and operation theatre rooms in hospitals and removes garbage and other material in closed buckets to the dustbin. Scrubs floor with cloth, wet in phenyl and water. Removes night soil using spade and broom and carries it to dumping ground in hand-cart.

ISCO 08 Unit Group Details:

Code 9613

Title Sweepers and Related Labourers

9613.0500

Sweeper, Sewer

Sweeper Sewer; Sewer Cleaner cleans blocked underground drains and sewage system by various cleaning instruments. Removes iron-cover from manhole and descends in manhole with drainage equipment. Collects debris and refuse in bucket using spade and hands over bucket to helper outside manhole. Uses bamboo or iron rod to clean sewer by pushing it in and out and repeats process till sewer is cleaned. May remove debris and refuse in garbage carts to dumping ground. May flush sewer with hose connected with underground hydrant.

ISCO 08 Unit Group Details:

Code 9613

Title Sweepers and Related Labourers

9613.9900

Sweepers and Related Labourers, Other

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Sweepers and Related Labourers, Other include all other workers engaged in sweeping, cleaning, and related work, not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9611

Title Garbage and Recycling Collectors

Group 962

Other Elementary Workers

Other Elementary Workers deliver and carry messages and packages, collect money and stock vending machines, read meters, collect water and firewood, collect and issue tickets for parking or events.

Occupations in this Group are classified into the following Families:

9621	Messengers, Package Deliverers and Luggage Porters
9622	Odd-job Persons
9623	Meter Readers and Vending Machine Collectors
9624	Water and Firewood Collectors
9629	Elementary Workers, Not Elsewhere Classified

Family 9621

Messengers, Package Deliverers and Luggage Porters

Messengers, Package Deliverers and Luggage Porters carry and deliver messages, packages and other items within an establishment or between establishments, to households and elsewhere, or carry luggage especially at hotels, stations and airports.

9621.0300

Caddie

Caddie carries bags of golf equipment around golf course, delivering clubs to players as requested. Keeps different types of golf clubs in leather bag; places golf ball over the small mound (on which golf-ball is placed for first stroke by player) and advises players, on request, in selection of proper club for particular stroke and/or on peculiarities of course; follows golf-ball after hit along with player and locates it, supplies required type of golf club for further stroke; collects golf clubs from player at close of play, cleans them and keeps kit in good condition. May inform player about type, condition and location of hole; may assist golf-professional (marker) in up-keep of golf course.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

9621.0400

Bellhop (Hotel and Restaurant)

Bellhop (Hotel and Restaurants) performs any combination of following duties to serve hotel guests. Escorts incoming hotel guests to rooms, assists with hand luggage, and offers information pertaining to available services and facilities of hotel, points of interest, and entertainment attractions. Inspects guest's room to ensure furnishings are in order and supplies are adequate. Explains features of room, such as operation of radio, television, and night-lock, and how to place telephone calls. Pages guests in lobby, dining room, or other parts of hotel. Delivers messages and runs errands. Delivers room service orders.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Picks up articles for laundry and valet service. Calls taxi for guests. Transports guests about premises or local areas in car or motorized cart. Keeps record of calls for service. Delivers packages, suitcases, and trunks, and sets up sample rooms.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

9621.0500

Porter, Baggage (Hotel and Restaurant)

Porter, Baggage (Hotel and Restaurant) delivers luggage to and from hotel rooms, sets up sample rooms for sales personnel and performs related services as requested by guest. Transfers trunks, packages, and other baggage to room or loading area, using hand pulled trolley. Arranges for outgoing freight, express or mail shipments, computes charges, tags article, and records information, such as addressee, addressor, carrier, and charges, on specified forms. Sets up display tables, racks, or shelves and assists sales personnel in unpacking and arranging merchandise display. May supply guests with travel information, such as transportation rates, routes, and schedules.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

9621.0600

(Letter Box Peon) Post Man

Letter Box Peon collects letters from letter boxes installed within his areas at

scheduled hours and delivers them to post office. Follows planned route to clear letter boxes in his beat at fixed hours. Unlocks letter boxes and collects mail into mail bag. Removes plate indicating hour of clearance and replaces it with new plate indicating next clearance hour. Locks letter box and ensures proper fixation of hour plate and lock. Clears all letter boxes and delivers bags containing mail to post office. May sort incoming and outgoing mail at the post office. May stamp letters and covers, seal bags and load or unload them in the mail van.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

9621.0700

Mail Carrier

Mail Carrier transports mail bags in van or cart to and from different post offices and railway station in his area. Collects mail bags from head post office or railway station. Counts and acknowledges their receipt. Loads mail bags in proper order in mail van or cart. Accompanies mail bags in van or cart for security, delivers them at railway station or post office and obtains receipt of delivery. Collects outgoing and local mail bags from post office, counts them and acknowledges their receipt. Delivers them at head post office against receipt. May assist in stamping, sorting and distributing letters. May carry mail bags manually. May work as Letter Box Peon.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

9621.0800

Runner, Mail

Runner, Mail collects and delivers letters and other postal articles from and to different village post offices and postal agencies. Collects mail bags from head post office, counts them and acknowledges their receipt. Carries and delivers them to specified post offices or places and obtains delivery receipts. Collects outgoing mail bags, counts and acknowledges their receipt and delivers them at the main post office against acknowledgment. May work as Sorter and Mail Carrier. May carry with him spear-head stick fitted with small bells to ward off wild animals.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

9621.0900

Sorter, Mail

Sorter, Mail sorts out incoming or outgoing mail, such as letters, parcels, registered articles, etc., for delivery to addressees or despatch to appropriate post offices. Collects mail to be sorted and reads addresses for sorting. Sorts mail, beat or area wise, according to addresses, in different bins or postal bags for distribution to Postmen for local delivery or despatch to appropriate post offices through Railway or Air Mail service. May work in post office or RAM'S. van and ensure despatch of mail bags to the correct destination.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

9621.1200

Hotel Concierge

Hotel Concierge; Baggage Porter, Hotel delivers baggage to and from hotel rooms, sets up sample room for Salesmen and performs related services as requested by guests or directed by authorities. Transfers trunks, packages and other baggage to room or loading area manually or using hand truck. Arranges for outgoing freight, express or mail shipment, compute charges, tags articles, and records information such as addressee, addresser, carrier and charges on specified forms. (Sets up display tables, racks or shelves and assists Salesmen in unpacking and arranging merchandise display.) May supply guests with travel information such as transportation rates, routes, and schedules. May escort incoming guests to rooms.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

9621.1300

Water Carrier

Water Carrier; Bhishtidraws water from wells, rivers ponds etc. for drinking, washing, cleaning and other purposes in house, building or institution. Collects water in big leather bags, buckets or other containers from taps, ponds or well and carries leather bag or containers filled with water and delivers at houses of clients for drinking, cleaning of drains, storage in tanks. Supplies water to work sites. May work whole-time or part-time

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

in private houses for supplying drinking water.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

9621.9900

Messengers, Package Deliverers and Luggage Porters, Other

Messengers, Package Deliverers and Luggage Porters, Other include workers who carry and deliver messages, packages and other items within an establishment or between establishments, to households and elsewhere, or carry luggage especially at hotels, stations and airports not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9621

Title Messengers, Package Deliverers and Luggage Porters

Family 9622

Odd-job Persons

Odd job Persons clean, paint and maintain buildings, grounds and facilities, and undertake simple repairs.

Family 9623

Meter Readers and Vending Machine Collectors

Meter Readers and Vending-Machine Collectors stock vending machines and collect money from them or from parking meters and other coin-boxes, or read electricity, gas or water meters.

9623.0100

Vending Machine Attendant

Vending Machine Attendant stocks machines and assists customers in facility where food is dispensed from coin-operated machines. Places food or drink items on shelves of vending machines and changes shelf labels as required to indicate selections. Makes change for customers and answers questions regarding selections. Adjusts temperature gauges to maintain food items at specified temperatures. Performs minor repairs or adjustments on machines to correct jams or similar malfunctions, using hand tools. Prepares requisitions for food and drink supplies. Cleans interior and exterior of machines, using damp cloth. Maintains eating area in orderly condition. May sell precooked foods from hot table. May remove money from vending machines and keep records of receipts.

ISCO 08 Unit Group Details:

Code 9623

Title Meter Readers and Vending Machine Collectors

9623.0200

Coin Collector

Coin Collector drives vehicle over established route to collect money from and refill coin-operated amusement-game machines and vending machines that dispense merchandise, such as coffee, food, beverages, candy and condoms. Loads transport vehicle with supplies according to instructions. Drives vehicle to establishment, collects coins, refills machine, cleans inside of machines that dispense food or beverages, and records amount of money collected. Turns in money to cashiering department at completion of route and unloads truck.

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

Reports malfunctioning machines to maintenance department for repair. May perform minor repairs or adjustments on machines, using hand tools, to correct malfunctions. May promote installation of new or additional coin-operated machines at locations of customers or potential customers.

ISCO 08 Unit Group Details:

Code 9623
Title Meter Readers and Vending Machine Collectors

9623.0300

Meter Reader

Meter Reader reads electric, gas or water consumption meters and records volume used by residential and commercial consumers: Walks or drives truck over established route and takes readings of meter dials. Inspects meters and connections for defects, damage, and unauthorised connections. Indicates irregularities on forms for necessary action by servicing department. Verifies readings to locate abnormal consumption and records reasons for fluctuations. Turns service off for non-payment of charges in vacant premises, or on for new occupants. Collects bills in arrears. Returns route book to commercial office for billing purposes.

ISCO 08 Unit Group Details:

Code 9623
Title Meter Readers and Vending Machine Collectors

9623.0301

Municipal Water and Sewage Assessor

Municipal Water and Sewage Assessor is responsible for carrying out readings of water meter installed in housing, commercial and institutional setups and collection of water and waste water samples for carrying out quality checks.

Qualification Pack Details:

QP NOS Reference	PSC/Q0203
QP NOS Name	Municipal Water and Sewage Assessor
NSQF Level	3

ISCO 08 Unit Group Details:

Code 9623
Title Meter Readers and Vending Machine Collectors

9623.0401

PUC Attendant

PUC Attendant needs to assist customers' in checking the vehicles and understanding the compliance pertaining to PUC.

Qualification Pack Details:

QP NOS Reference	ASC/Q9601
QP NOS Name	PUC Attendant
	Level 2
NSQF Level	2

ISCO 08 Unit Group Details:

Code 9623
Title Meter Readers and Vending Machine Collectors

9623.0501

Tyre Inflation Attendant

Tyre Inflation Attendant needs to maintain the air check facility existing at fuel stations. The individual needs to

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

check the air pressure in vehicles coming into the fuel station using digital/manual air facility.

Qualification Pack Details:

QP NOS Reference	ASC/Q9603
QP NOS Name	Tyre Inflation Attendant
NSQF Level	2

ISCO 08 Unit Group Details:

Code	9623
Title	Meter Readers and Vending Machine Collectors

9623.0601

Quick Care Point Attendant

Quick Care Point Attendant needs to assist customers in checking the vehicles and understanding the compliance pertaining to coolant, water and oil levels.

Qualification Pack Details:

QP NOS Reference	ASC/Q9602
QP NOS Name	QCP Attendant
NSQF Level	2

ISCO 08 Unit Group Details:

Code	9623
Title	Meter Readers and Vending Machine Collectors

9623.9900

Vending Machine Money Collectors, Meter Readers and Related Workers, Other

Vending Machine Money Collectors, Meter Readers and Related Workers, Other include workers who stock vending machines and collect money from them or from parking meters and other coin-

boxes, or read electricity, gas or water meters not elsewhere classified.

ISCO 08 Unit Group Details:

Code	9623
Title	Meter Readers and Vending Machine Collectors

Family 9624

Water and Firewood Collectors

Water and firewood collectors collect water and firewood and transport them on foot or using hand or animal carts.

Family 9629

Elementary Workers, Not Elsewhere Classified

This family covers Elementary Workers not classified elsewhere in Division 9, Elementary workers. For instance, the group includes those who issue and collect parking or admission tickets, provide personal items to patrons or customers in cloak.

9629.0100

Usher

Usher guides patrons to their seats in cinema halls, theatres and other places of entertainment. Examines uncollected portions of tickets, held by patrons, at entrance or inside auditorium or enclosure of show, play, game or any other entertainment to find out allotted numbers of seats reserved; escorts patrons to their appropriate seats; guides patrons whose seats are not reserved to available unreserved seats; distributes programme or other publicity material and answers queries of patrons regarding

NATIONAL CLASSIFICATION OF OCCUPATIONS - 2015

location of bars, restaurants, public conveniences, telephone etc., assists patrons in searching lost articles; delivers left behind articles to manager for return to owners; examines collected portions of tickets at gate, arranges and renders account to manager; assists in displaying publicity posters, hoardings, or notices in or outside place of entertainment. May do odd jobs for superiors e.g. getting hand-bills printed, checking of tickets, etc.

ISCO 08 Unit Group Details:

Code 9629

Title Elementary Workers Not
Elsewhere Classified

9629.9900

Door Keepers, Watchpersons and Related Workers, Other

Door Keepers, Watchpersons and Related Workers, Other include workers who undertake door keeping duties in apartment houses and other buildings, attend parking places, watch houses and other properties to prevent illegal entry or theft and detect fire or other hazards, collect tickets, or perform ushering duties not elsewhere classified.

ISCO 08 Unit Group Details:

Code 9629

Title Elementary Workers Not
Elsewhere Classified