







Model Curriculum

QP Name: Jal Mitra

QP Code: PSC/Q0117

QP Version: 2.0

NSQF Level: 4

Model Curriculum Version: 2.0

Water Management and Plumbing Skill Council | Unit- 606 & 609, Tower-C, DLF Prime Towers, Phase-1, Okhla, Delhi,110020







Table of Contents

Training Parameters	2
Program Overview	3
Training Outcomes	3
Compulsory Modules	3
Module Details	5
Module 1: Introduction to Jal Jeevan Mission and the job role	5
Module 2: Water Conservation	6
Module 3: Grey Water Management	8
Module 4: Remote Water Monitoring and Management	10
Module 5: Social Engagement	11
Module 6: Service Delivery and Management	13
Module 7: Health and safety	14
Module 8: Team effectiveness	16
Module 9: Employability Skills	18
Annexure	20
Trainer Requirements	20
Assessor Requirements	21
Assessment Strategy	22
References	23
Glossary	23
Acronyms and Abbreviations	24







Training Parameters

Sector	Water Management and Plumbing
Sub-Sector	Industrial / Non-Industrial Plumbing
Occupation	Plumbing Systems Installation and Maintenance
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/ 7126.9900
Minimum Educational Qualification and Experience	12th grade Pass OR Pursuing 3rd year of 3-year diploma after 10th OR 10th grade pass with 1-year NTC plus CITS (or NAC) OR 8th grade pass with 2-year NTC plus 1 year NAC plus 1-year CITS OR Certificate-NSQF (4 as Plumber - General with 8th Grade Pass) with 1 Year of experience Relevant OR Previous relevant Qualification of NSQF Level (3 as Assistant Plumber - General with 8th Grade Pass) with 2 Years of experience Relevant
Pre-Requisite License or Training	NA
Minimum Job Entry Age	20 Years
Last Reviewed On	24-02-2022
Next Review Date	24-02-2025
NSQC Approval Date	
QP Version	2.0
Model Curriculum Creation Date	21-12-2022
Model Curriculum Valid Up to Date	21-12-2025
Model Curriculum Version	2.0
Minimum Duration of the Course	480 Hours
Maximum Duration of the Course	480 Hours







Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Perform the steps involved in construction and maintenance activities for water conservation structures in village dwellings, farms and small communities
- Perform the steps involved in construction and repair related tasks for soak pits and kitchen gardens that re-use grey water.
- Demonstrate How to assess the functionality of IoT based remote monitoring systems used in rural water supply programs.
- Demonstrate how to assist Village Water and Sanitation Committees (VWSCs) in scheme planning, social mobilisation and enhancing community ownership of schemes.
- Employ appropriate practices to carry out service delivery and management activities for rural projects.
- Apply appropriate health and safety practices at the workplace.
- Discuss the importance of working effectively with others.
- Demonstrate practices for optimizing resource utilization at the workplace.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	Total Duration
PSC/N0146: Construct and Maintain Water Conservation Structures NOS Version No.: 1.0 NSQF Level: 4	35:00 Hours	45:00 Hours	10:00 Hours	90:00 Hours
Module 1: Introduction to Jal Jeevan Mission and the job role	05:00 Hours	00:00 Hours	00:00 Hours	05:00 Hours
Module 2: Water Conservation	30:00 Hours	45:00 Hours	10:00 Hours	85:00 Hours
PSC/N0147: Construct and Repair Soak Pits and Kitchen Gardens NOS Version No.: 1.0 NSQF Level: 4	35:00 Hours	45:00 Hours	10:00 Hours	90:00 Hours
Module 3: Grey Water Management	35:00 Hours	45:00 Hours	10:00 Hours	90:00 Hours







PSC/N0148: Assess Sunctionality of IoT Based Remote Monitoring Systems NOS Version No.: 1.0 NSQF Level: 5 NOS Version No.: 1.0 NSQF Level: 4 Nodule 7: Health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Nodule 7: Health and safety NOS Version No.: 1.0 NSQF Level: 5 NOS Version No:: 1.0 NSQF Level: 5 NOS Ve					
Module 4: Remote Water Monitoring and Management PSC/N0149: Assist 15:00 Hours 45:00 Hours 15:00 Hours 75:00 Hours Village Water and Sanitation Committees (VWSCs) NOS Version No.: 1.0 NSQF Level: 5 Module 5: Social 15:00 Hours 45:00 Hours 15:00 Hours 75:00 Hours 75:00 Hours 15:00 Hours 15:00 Hours 45:00 Hours 15:00 Hours 45:00 Hours 10:00 Hours 45:00 Hours 10:00 Hours 45:00 Hours 10:00 Hours 10:00 Hours 10:00 Hours 15:00 Hours	Functionality of IoT Based Remote Monitoring Systems NOS Version No.: 1.0	30:00 Hours	45:00 Hours	15:00 Hours	90:00 Hours
Monitoring and Management PSC/N0149: Assist Village Water and Sanitation Committees (VWSCs) NOS Version No.: 1.0 NSQF Level: 5 Module 5: Social Engagement PSC/N0150: Carry out service delivery and management activities for rural projects NOS Version No.: 1.0 NSQF Level: 5 Module 6: Service Deliveryand Management PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team O5:00 Hours 15:00 Hours 15:00 Hours 10:00 Hours 10:00 Hours 15:00 Hours	NSQF Level: 5				
PSC/N0149: Assist Village Water and Sanitation Committees (VWSCs) NOS Version No.: 1.0 NSQF Level: 5 Module 5: Social Engagement PSC/N0150: Carry out service delivery and management activities for rural projects NOS Version No.: 1.0 NSQF Level: 5 Module 6: Service Deliveryand Management PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 4 Module 8: Team O5:00 Hours 15:00 Hours 45:00 Hours 10:00 Hours 10:00 Hours 15:00 Hours	Monitoring and	30:00 Hours	45:00 Hours	15:00 Hours	90:00 Hours
Village Water and Sanitation Committees (VWSCs) NOS Version No.: 1.0 NSQF Level: 5 Module 5: Social Engagement PSC/N0150: Carry out service delivery and management activities for rural projects NOS Version No.: 1.0 NSQF Level: 5 Module 6: Service Deliveryand Management PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team O5:00 Hours 10:00 Hours 10:00 Hours 00:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours		45.00.11	45.00.11	45.00.11	75.00.11
Module 5: Social Engagement PSC/N0150: Carry out service delivery and management activities for rural projects NOS Version No.: 1.0 NSQF Level: 5 Module 6: Service Deliveryand Management PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team O5:00 Hours 15:00 Hours 45:00 Hours 10:00 Hours 10:00 Hours 10:00 Hours 15:00 Hours	Village Water and Sanitation Committees (VWSCs)	15:00 Hours	45:00 Hours	15:00 Hours	75:00 Hours
Module 5: Social Engagement PSC/N0150: Carry out service delivery and management activities for rural projects NOS Version No.: 1.0 NSQF Level: 5 Module 6: Service Deliveryand Management PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team D5:00 Hours 15:00 Hours 20:00 Hours 10:00 Hours 10:00 Hours 10:00 Hours 15:00 Hours					
PSC/N0150: Carry out service delivery and management activities for rural projects NOS Version No.: 1.0 NSQF Level: 5 Module 6: Service Deliveryand Management PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team 05:00 Hours 10:00 Hours 10:00 Hours 15:00 Hours 15:	Module 5: Social	15:00 Hours	45:00 Hours	15:00 Hours	75:00 Hours
NOS Version No.: 1.0 NSQF Level: 5 Module 6: Service Deliveryand Management PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team 15:00 Hours 20:00 Hours 10:00 Hours 10:00 Hours 00:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours	PSC/N0150: Carry out service delivery and management activities	15:00 Hours	20:00 Hours	10:00 Hours	45:00 Hours
Deliveryand Management PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team O5:00 Hours 10:00 Hours 00:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 15:00 Hours 10:00 Hours 00:00 Hours	NOS Version No.: 1.0 NSQF Level: 5				
health and safety practices at the workplace NOS Version No.: 1.0 NSQF Level: 4 Module 7: Health and safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team	Deliveryand Management	15:00 Hours	20:00 Hours	10:00 Hours	45:00 Hours
safety PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team O5:00 Hours 10:00 Hours 00:00 Hours 15:00 Hours 15:00 Hours	health and safety practices at the workplace NOS Version No.: 1.0	05:00 Hours	10:00 Hours	00:00 Hours	15:00 Hours
Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5 Module 8: Team 05:00 Hours 10:00 Hours 15:00 Hours		05:00 Hours	10:00 Hours	00:00 Hours	15:00 Hours
	Measures to Work Effectively NOS Version No.: 1.0	05:00 Hours	10:00 Hours	00:00 Hours	15:00 Hours
Effectiveness		05:00 Hours	10:00 Hours	00:00 Hours	15:00 Hours
DGT/VSQ/N0102: 40:00 Hours 20:00 Hours 60:00 Hours Hours) NOS Version No.: 1.0 NSQF Level: 4	Employability Skills (60 Hours) NOS Version No.: 1.0	40:00 Hours	20:00 Hours	00:00 Hours	60:00 Hours
Module 9: Employability Skills 40:00 Hours 20:00 Hours 00:00 Hours 60:00 Hours		40:00 Hours	20:00 Hours	00:00 Hours	60:00 Hours
Total Duration 180:00 Hours 240:00 Hours 60:00 Hours 480:00 Hours	Total Duration	180:00 Hours	240:00 Hours	60:00 Hours	480:00 Hours







Module Details

Module 1: Introduction to Jal Jeevan Mission and the job role *Bridge Module*

- Discuss the relevance and key features of Jal Jeevan Mission.
- Describe the role of Jal Mitra.

Duration : <i>05:00</i>	Duration : 00:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain the relevance of Jal Jeevan Mission.	
• State the key features of Jal Jeevan Mission.	
• List the roles and responsibilities of Jal	
Mitra.	
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Pro Participant's Handbook	esentation and software, Facilitator's Guide,
Tools, Equipment and Other Requirements	
Nil	







Module 2: Water Conservation Mapped to PSC/N0146, v 1.0

- Discuss the need and solutions for water conservation in village dwellings, farms and small communities.
- Demonstrate the activities involved in planning and constructing water conservation structures.
- Show how to carry out maintenance and repair related activities for water conservation structures.

 Discuss the global, national and regional water crises scenario. 	ical – Key Learning Outcomes alculate the rain water rain-water arvesting potential based on annual ainfall for a catchment area including a
regional water crises scenario.	arvesting potential based on annual
 Explain the need for ensuring sustainability of the water conservation structures. Discuss the role of community and organizations in water conservation. Elucidate water conservationplans for villages. List out the information required for estimating the scope of rain-water harvesting. Recall various natural sources of water. Explain various water conservation 	coftop, farm or small community. emonstrate the tasks related to construction of water harvesting cructures by performing masonry corks including bricklaying, preparation of mortar, concrete etc. emonstrate the cleaning and caintenance activities that are erformed regularly on water carvesting structures. how the steps to repair faulty water carvesting structures. emonstrate the processinvolved in cater budgeting.







volume, mass, force, pressure, scales, ratios etc.

- Discuss the procedures and precautions for conservation of rainwaterin water conservation structures.
- Summarize the standards relevant to the plumbing industry.
- Identify the materials, tools, equipment and labour required for construction of water conservation structures.
- Explain how to estimate and source materials, tools, equipment and labour required for construction of water harvesting structures.
- Discuss the construction, operation and maintenance procedures for water conservation structures.
- State the measures taken to avoid airand water contamination, erosion and sedimentation while collecting and storing water in water conservation structures.
- List the health and safety measures to be taken during construction and maintenance of water conservation structures.

Classroom Aids:

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

Tools, Equipment and Other Requirements

Site for practice of construction of water harvesting structures, Buildings for preparing roof top water harvesting structures, tools for digging soil, tape measure, levelling tool, plumb bob, cPVC pipes and fittings, 1 feet diameter Hume/Rcc pipe and fittings, valves (2-way and 3-way, RWH structure, flush), sealing solution/paste, pegs, rope, boulders and gravel, masonry materials and tools, filter media such as burnt bricks, 1000 Litre drum with lid, storage tank, 250 micron filter, mesh







Module 3: Grey Water Management *Mapped to PSC/N0147, v 1.0*

- Discuss the need and solutions for grey water management in village dwellings, farms and small communities.
- Demonstrate the activities involved in construction of soak pits and kitchen gardens for reuse of grey water in households and communities.
- Demonstrate repair related activities for soak pits and kitchen gardens.

Duration : <i>35:00</i>	Duration : 45:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
 Differentiate grey water from other types of water in households. List different kinds of grey water sources in households. Discuss the benefits of grey water management at both household and community level. Explain the estimation process of grey water management. Discuss about quality of grey water and its risk assessment. List the various technologies for grey water management at household and community level. List the materials, tools and equipment required for construction of soak pit and kitchen garden. Explain how to estimate and source materials and tools, required for construction of soak pit and kitchen garden. Explain the construction and maintenance procedures for community soak pit (Reference- Swachh Bharat Mission guidelines). List the measures that can be taken to avoid air and water contamination, erosion and sedimentation. State the health and safety measures to be taken during construction and maintenance of soak pit and kitchen garden. Discuss the role of community and organizations in grey water management Recall key factors to be considered while making the village action plan for greywater management. 	 Calculate the average estimating the average grey water generation for a household per day. Calculate the size of soak pit required to treat the grey water generated. Demonstrate the tasks involved in the construction of soak pit for treatment of the grey water and ground water recharge. Demonstrate the tasks involved in the construction of a kitchen garden for the reuse of grey water Perform the steps to check faults in a faulty soak pit and kitchen garden. Demonstrate the activities involved in rectifying the fault(s) in a faulty soak pit and kitchen garden.







Classroom Aids:

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

Tools, Equipment and Other Requirements

Dwelling using water on a daily basis for various purposes with land for kitchen garden and soak pit, Grey water, blue water and black water samples, water quantity measurement tools, tools for digging soil, tape measure, levelling tool, plumb bob, cPVC pipes and fittings, 1 feet diameter Hume/Rcc pipe and fittings, valves (2-way and 3-way, RWH structure, flush), sealing solution/paste, pegs, rope, boulders and round stones, masonry materials and tools, filter media, water quality measurement kits.







Module 4: Remote Water Monitoring and Management Mapped to PSC/N0148, v 1.0

Terminal Outcomes:

Duration: 30:00

- Discuss the role of sensors and IoT based equipment in remote water monitoring and management.
- Demonstrate various activities involved in assessing the functionality of IoT based remote monitoring systems used in rural water supply programs.

Duration: 45:00

Duration: 30:00	Duration: 45:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
 List various types of sensors and their applications. Recall different types of IoT based equipment used in remote water monitoring and management. Identify the components of IoT based Piped Water Monitoring System. Discuss the information available from the dashboards of remote water monitoring systems. Explain the importance of maintenance of IoT based remote water monitoring systems. Discuss the process of basic troubleshooting of common faults that could occur in an IoT based remote water monitoring system. Discuss the health, safety and security guidelines to be adhered to while dealing with IoT based remote water monitoring systems. 	 Perform the steps involved in reading and interpreting the dashboard of the IoT based remote water monitoring system. Show how to check if appropriate supply of water and current is available to the equipment. Perform the steps to check the cables for any damage or improper usage. Show how to check if appropriate analogue/digital signal is received from the sensor at the equipment terminal. Perform the steps to troubleshooting of the remote monitoring system.

Classroom Aids:

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

Tools, Equipment and Other Requirements

Smartphone, Analogue and digital sensors that measure temperature, water level, pressure, levels etc., ground water level sensor, flow sensor, water level sensor inside water tank, borewell, IoT based Piped Water Monitoring System







Module 5: Social Engagement *Mapped to PSC/N0149, v 1.0*

- Perform the steps to gather data for planning of social engagement schemes.
- Demonstrate various community mobilization activities aimed at enhancing participation and ownership.

Duration : 15:00	Duration : 45:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
 Discuss various solutions and schemes related to water conservation and efficient water usage. State the data and information required for planning various water conservation and efficient water usage solutions and schemes. Explain how to obtain required data for water conservation. Explain the importance of data verification and data triangulation. Explain the importance of verifying data and information collected before handover to the relevant authorities. Discuss basic water quality mapping and water budgeting concepts andpractices. Explain how to undertake drinking water quality tests for the geographic area. Discuss the importance of collating information for water budgeting and water quality mapping. Explain how to identify location in the community where water quality boards can be put up. Discuss the role of community and importance of mobilizing community members for successful implementation of water conservation and efficient water usage practices and schemes. List the stakeholders involved in selection and implementation of water conservation and efficient water usage solutions and schemes. Share insight on conducting participatory rural appraisal (PRA) activities, structure and how to engage communities in it. 	 Demonstrate key steps involved in conducting a survey to estimate the water requirements in consultation with the Village Water and Sanitation Committee (VWSC). Demonstrate the activities involved in collating community related data and suggestions for water conservation, grey water re-use and water usage efficiency potential. Apply appropriate techniques to conduct a stakeholder analysis. Role play enrolment conversations with communities aimed at getting them to participate in various schemes for water conservation and water usage efficiency practices. Dramatize co-ordination activities with the village committees and gram panchayat for implementation of schemes for water conservation and efficient water usage. Demonstrate the activities involved in setting up water quality board at gram panchayat to ensure proper planning cleaning and maintenance of water harvesting structures. Demonstrate the activities involved in conducting workshops, distributing flyers, organising rallies and other awareness building activities as part of promotion campaigns. Dramatize the training to various local level stakeholders for use and care of the systems and structures installed.







- Describe how to create a roadmap for participatory rural appraisal(PRA) activities.
- State the roles and responsibilities of village water and sanitation committee (VWSC) and other rural committees
- Discuss the social and behavioral change required at the community level.
- Describe various types of campaigns and campaign activities used in rural social engagement schemes.
- Explain the importance of ensuring participation of diverse social groups of the village from different religions, castes and age groups for triangulation
- State the importance of awareness building of community members and other stakeholders.
- Discuss the importance of initiating dialogue and discussion between community members to find solutions on critical issues like health, sanitation, hygiene, etc.
- List key features of tools and techniques that will engage the community members.
- State the importance of providing suggestions for building effective community engagement tools and techniques aligned with local requirements.
- Explain the key aspects of cleanliness and maintenance of water conservation structures.

Classroom Aids:

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

Tools, Equipment and Other Requirements

Smartphone, sample promotion media materials, stationary







Module 6: Service Delivery and Management Mapped to PSC/N0150, v 1.0

Terminal Outcomes:

- Discuss various concepts of service delivery and management.
- Demonstrate various service delivery and management activities.

Duration: 15:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
 Explain the importance of planning and time management. Discuss the process of planning for efficient delivery of projects. List the key tools for effective planning. Discuss how to identify the needs and requirements of the client and the objectives to be achieved. Describe the process of estimation and costing of materials and labour. State the importance of sharing the plan with the stakeholders for approval and suggestions. Elucidate how to arrange for resources as per plan from authorized sources. State the importance of maintaining quality, continuity and cost effectiveness. State the importance of reviewing the work to ascertain if the objectives are met. Explain how to evaluate quality of workand check if any further action is required to enhance service delivery. State the importance of seeking feedback from stakeholders about the workdone. State the importance of maintaining records of materials consumed and inventory. Explain the basic accounting principles for micro enterprise. Explain how to calculate margins and cashflow. Discuss the opportunities for increasing cost effectiveness while maintaining quality and continuity. 	 Develop a sample checklist a checklistof tasks and schedule of activities to achieve the objectives. Calculate the estimate and cost of the materials and labour required. Apply appropriate techniques in implementing a plan with the support of stakeholder. Show how to maintain records of the materials consumed and inventory. Show how to maintain accounts for incomes/revenues, expenses, margins and cash-flows.

Classroom Aids:

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

Tools, Equipment and Other Requirements

Planning and accounting formats







Module 7: Health and safety Mapped to PSC/N0136, v 1.0

- Describe the various risks and hazards at the workplace and their preventive and corrective measures
- Employ preventive and corrective measures to protect self and others from common workplace hazards and risk

Duration: <i>05:00</i>	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
 Differentiate between risks and hazards. Discuss the specific safety and health related problems faced in domestic, commercial and institutional setups. List the various types of hazards (such as physical, fire, chemical compounds and electrical) that could affect the work process. List the various hazardous environments and common hazards that can occur during plumbing installation and maintenance along with their precautions and remedial measures. Discuss the importance of various types of personal protective equipment (PPE). Discuss where the general health and safety equipment commonly is kept at the workplace. Explain the various types of safety signs and their significance in the work process. Discuss various causes of fire and precautionary activities to prevent the fire accident. List the different techniques that employ various methods (such as using extinguishers, water hose, sprinklers, sand bucket, wet blanket, etc.) and materials such as water, powder, foam, CO2, fire extinguishing chemical, sand, blanket, etc. used for extinguishing fire as per the type (as per class A, B, C and D). Describe rescue techniques applied during a fire hazard or electrocution. Discuss appropriate basic first aid treatment relevant to the condition e.g. shock, electrical shock, bleeding, minor burns, poisoning, eye injuries etc. 	 Perform inspection of a work area in order to identify risks and hazards. Apply various health and safety precautions to be taken during plumbing work. Apply personal and workspace hygiene and sanitation practices. Dramatize workplace emergency and evacuation procedures using role plays. Demonstrate the correct use of fire extinguishers. Dramatize, using role play, safe methods of freeing a person from electrocution. Perform appropriate first aid treatment for various conditions such as bleeding, burns, choking, electric shock and poisoning and injury. Demonstrate the process of providing cardiopulmonary resuscitation (CPR).







 Discuss potential injuries and health problems associated with incorrect handing of tools and equipment.

Classroom Aids:

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

Tools, Equipment and Other Requirements

Personal protective equipment (such as eye protector, hard hats, safety belts, gloves, protective clothing), plumbing tools and materials, power tools, required machinery, fire extinguisher, first aid kit.







Module 8: Team effectiveness *Mapped to PSC/N0138, v 1.0*

- Apply effective communication techniques with team and stakeholders.
- Describe approaches to handle queries, concerns and welfare of workers.
- Role-play a situation on how to demonstrate behavior indicating respect for all genders and PwD.

Duration : <i>05:00</i>	Duration : 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
 State the importance of effective communication in the workplace and the impact of poor communication on any employee, employer and customer. List various components of effective communication. State the advantages and disadvantages of various modes of communication. State the importance of teamwork in organizational and individual success. Describe the group dynamics and processes List the common reasons for interpersonal conflict and ways of managing it effectively. Discuss the possible ways to deal with grievances and problems appropriately and effectively Explain the concept of goal setting and its importance for self and team. State common measures that can be implemented at a plumbing work site to improve workplace productivity and team effectiveness. Discuss the importance of adhering to legislation, standards, policies, and procedures relevant to own employment and performance conditions. Discuss types of unacceptable behaviour Explain the importance of ethics and discipline for professional success Explain the impact of gender, disability, cultural and age-related biases, stereotyping at the workplace and in society. State the laws, acts, provisions and schemes defined for PwD and against sexual 	 Dramatize situations showing good practices for handling worker complaints and concerns. Dramatize the process of dealing with conflicts among team members. Demonstrate the various administrative duties and personnel duties. Demonstrate the use of inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive. Dramatize the use of appropriate tone, pitch and language to convey politeness, assertiveness, care, professionalism and a non-biased attitude. Demonstrate practices to eliminate personal bias based on gender, disability, caste, religion, colour, sexual orientation and culture from routine transactions. Demonstrate how to give feedback on individual work performance to each team member for improvement in work quality. Demonstrate the best practices for training of workers on performing various plumbing tasks correctly.







harassment of women in workplace by the Government bodies.

- Discuss basic gender concepts such as gender power relations, gender roles, access and control, gender sensitivity, gender equity and equality.
- Discuss the importance of gender sensitivity and equality.
- Discuss types and indicators of harassment and discrimination based on gender, disability, caste, religion, colour, sexual orientation and culture at workplace.
- State general organisational norms and procedures applied to protect against harassment and discrimination.
- Discuss the importance of reporting incidents of harassment and discrimination to appropriate authority.
- List common causes for lag in performance of the plumbing team as well as possible solutions to bridge the gap.
- Explain the importance of providing feedback on individual work performance to each team member for improvement in work quality.
- Explain the importance of training the workers involved in plumbing activities at site.

Classroom Aids:

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

Tools, Equipment and Other Requirements

Nil







Module 9: Employability Skills Mapped to DGT/VSQ/N0102, v 1.0

- Describe the importance and values of employability skills and apprenticeship opportunities to meet job demands
- Explain basic communication skill, digital and financial literacy skills for customer-oriented outcome.

Duration: 40:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
 Discuss the Employability Skills required for jobs in various industries List different learning and employability related GOI and private portals and their usage Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen Discuss importance of relevant 21st century skills. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life. Describe the benefits of continuous learning. Explain the importance of active listening for effective communication Discuss the significance of working collaboratively with others in a team Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD Discuss the significance of escalating sexual harassment issues as per POSH act. Outline the importance of selecting the right financial institution, product, and service Demonstrate how to carry out offline and online financial transactions, safely and securely 	 Show how to practice different environmentally sustainable practices. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone Read and interpret text written in basic English Write a short note/paragraph / letter/e-mail using basic English11. Create a career development plan with well-defined short- and long-term goals Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette. Create sample word documents, excel sheets and presentations using basic features Create a professional Curriculum Vitae (CV)







- List the common components of salary and compute income, expenditure, taxes, investments etc.
- Discuss the legal rights, laws, and aids.
- Describe the role of digital technology in today's life.
- Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
- Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
- Utilize virtual collaboration tools to work effectively
- Explain the types of entrepreneurship and enterprises
- Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
- Describe the 4Ps of Marketing-Product,
 Price, Place and Promotion and apply
 them as per requirement
- Create a sample business plan, for the selected business opportunity
- Describe the significance of analyzing different types and needs of customers
- Explain the significance of identifying customer needs and responding to them in a professional manner.
- Discuss the significance of maintaining hygiene and dressing appropriately
- Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
- Discuss the significance of maintaining hygiene and confidence during an interview 36. Perform a mock interview
- List the steps for searching and registering for apprenticeship opportunities

Classroom Aids:

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

Tools, Equipment and Other Requirements

Energy-saving devices, non-recyclable, recyclable and reusable waste







Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational	Specialization	Relevant Industry Experience		Training Experience		Remarks
Qualification		Years	Specialization	Years	Specialization	
B. Tech/ B.E.	Civil or Mechanical Engineering	3	Plumbing or Water Management or Public Health Department	2	Plumbing	
Diploma	Civil or Mechanical Engineering	4	Plumbing or Water Management or Public Health Department	2	Plumbing	
CITS Certified Trainer	Plumbing					

Trainer Certification				
Domain Certification	Platform Certification			
Certified for Job Role: "Jal Mitra" mapped to QP: "PSC/Q0117, v2.0". Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q2601". Minimum accepted score as per MEPSC guidelines is 80%.			







Assessor Requirements

Assessor Prerequisites						
Minimum Educational	Specialization al	Relevant Industry Experience		Training / Assessment Experience		Remarks
Qualification		Years	Specialization	Years	Specialization	
B. Tech/ B.E.	Civil or Mechanical Engineering	5	Plumbing or Water Management or Public Health Department	2	Plumbing	
Diploma	Civil or Mechanical Engineering	7	Plumbing or Water Management or Public Health Department	2	Plumbing	

Trainer Certification				
Domain Certification	Platform Certification			
Certified for Job Role: "Jal Mitra" mapped to QP: "PSC/Q0117, v2.0". Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q2601". Minimum accepted score as per MEPSC guidelines is 80%.			







Assessment Strategy

Assessment is done through third parties who are affiliated to IPSC as Assessment Body. Assessors are trained & certified by IPSC through Training of Assessors program. The assessment involves two processes. The first process is gathering the evidence of the competency of individuals. The second part of the assessment process is the judgement, based on the evidence as to whether a person is competent as per the standard or not. The assessment plan contains the following information:

- What will be assessed, i.e. the competency based on each NOS
- How assessment will occur i.e. methods of assessment
- When the assessment will occur
- Where the assessment will take place i.e. context of the assessment (workplace/simulation)
- The criteria for decision making i.e. those aspects that will guide judgements and
- Where appropriate, any supplementary criteria used to make a judgement on the level of performance.

The assessment is conducted through theory, viva voce and practical.







References

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training .
	and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.







Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards