Model Curriculum

QP Name: Jal Mitra

QP Code: PSC/Q0117

QP Version: 1.0

NSQF Level: 4

Model Curriculum Version: 1.0

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

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Training Parameters

Sector	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	10th + I.T.I with 3 years of relevant experience OR 12th + 3 years of relevant experience OR 10th + NSQF Level-4 Certification (Plumber - General) with 3 years of relevant experience OR 3 Years Diploma in Civil or Mechanical Engineering with 2 years of relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	20 Years
Last Reviewed On	24/02/2022
Next Review Date	24/02/2026
NSQC Approval Date	
QP Version	1.0
Model Curriculum Creation Date	23/06/2021
Model Curriculum Valid Up to Date	24/02/2026
Model Curriculum Version	1.0
Minimum Duration of the Course	390 Hours
Maximum Duration of the Course	510 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)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	***04:00 Hours***	***00:00 Hours***	***00:00 Hours***	***00:00 Hours***	***04:00 Hours***
Module 1: Introduction to Jal Jeevan Mission and the job role	04:00 Hours	00:00 Hours	00:00 Hours	00:00 Hours	04:00 Hours
PSC/N0146: Construct and Maintain Water Conservation Structures NOS Version No.: 1.0 NSQF Level: 5	**22:00 Hours**	**40:00 Hours**	**00:00 Hours**	**20:00 Hours**	**82:00 Hours**
Module 2: Water Conservation	22:00 Hours	40:00 Hours	00:00 Hours	20:00 Hours	82:00 Hours

PSC/N0147: Construct and Repair Soak Pits and Kitchen Gardens NOS Version No.: 1.0 NSQF Level: 5	**22:00 Hours**	**36:00 Hours**	**00:00 Hours**	**20:00 Hours**	**78:00 Hours**
Module 3: Grey Water Management	22:00 Hours	36:00 Hours	00:00 Hours	20:00 Hours	78:00 Hours
PSC/N0148: Assess Functionality of IoT Based Remote Monitoring Systems NOS Version No.: 1.0 NSQF Level: 5	**26:00 Hours**	**32:00 Hours**	**00:00 Hours**	**20:00 Hours**	**78:00 Hours**
Module 4: Remote Water Monitoring and Management	26:00 Hours	32:00 Hours	00:00 Hours	20:00 Hours	78:00 Hours
PSC/N0149: Assist Village Water and Sanitation Committees (VWSCs) NOS Version No.: 1.0 NSQF Level: 5	**28:00 Hours**	**34:00 Hours**	**00:00 Hours**	**20:00 Hours**	**82:00 Hours**
Module 5: Social Engagement	28:00 Hours	34:00 Hours	00:00 Hours	20:00 Hours	82:00 Hours
PSC/N0150: Carry out service delivery and management activities for rural projects NOS Version No.: 1.0 NSQF Level: 5	**24:00 Hours**	**34:00 Hours**	**00:00 Hours**	**20:00 Hours**	**78:00 Hours**
Module 6: Service Deliveryand Management	24:00 Hours	34:00 Hours	00:00 Hours	20:00 Hours	78:00 Hours
PSC/N0136: Apply health and safety practices at the workplace NOS Version No.: 1.0NSQF Level: 4	**08:00 Hours**	**24:00 Hours**	**00:00 Hours**	**08:00 Hours**	**40:00 Hours**
Module 7: Health andsafety	08:00 Hours	24:00 Hours	00:00 Hours	08:00 Hours	40:00 Hours
PSC/N0138: Implement Measures to Work Effectively NOS Version No.: 1.0 NSQF Level: 5	**08:00 Hours**	**24:00 Hours**	**00:00 Hours**	**06:00 Hours**	**38:00 Hours**
Module 8: Team Effectiveness	08:00 Hours	24:00 Hours	00:00 Hours	06:00 Hours	38:00 Hours

SGJ/N1702 Optimize resource utilization at workplaceNOS Version No.: 1.0 NSQF Level: 3	**08:00 Hours**	**16:00 Hours**	**00:00 Hours**	**06:00 Hours**	**30:00 Hours**
Module 9: Optimum utilization of resources	08:00 Hours	16:00 Hours	00:00 Hours	06:00 Hours	30:00 Hours
Total Duration	**150:00 Hours**	**240:00 Hours**	**00:00 Hours**	**120:00 Hours**	**510:00 Hours**

Module Details

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

Bridge Module

Terminal Outcomes:

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

Duration: *04:00*	**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 Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Nil	

Module 2: Water Conservation

Mapped to PSC/N0146, v 1.0

Terminal Outcomes:

- 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.

Duration: *22:00*	**Duration**: *40:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the global, national and regional water crises scenario. • Explain the need for waterconservation to maintain quantity and quality. • Explain the need for ensuringsustainability 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 structures and their applications, such as, contour trenches, ponds, watersheds, water basins, stop dams, etc. • List the criteria for selection of a simple water conservation structure suitable for a village dwelling, farm or small community • State the factors to be considered for identifying a site for construction of water harvesting structure. • State the importance of accuracy in measurements and calculations. • Identify the mathematical formulas needed to calculate area, length, perimeter, diameter, circumference,	• Calculate the rain water rain-water harvesting potential based on annual rainfall for a catchment area including a rooftop, farm or small community. • Demonstrate the tasks related to construction of water harvesting structures by performing masonry works including bricklaying, preparation of mortar, concrete etc. • Demonstrate the cleaning and maintenance activities that are performed regularly on water harvesting structures. • Show the steps to repair faulty water harvesting structures. • Demonstrate the processinvolved in water budgeting.

volume, mass, force, pressure, scales, ratios etc. • Discuss the procedures and precautions for conservation of rainwaterin water conservation structures. • Summarize the standards relevant tothe 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

Terminal Outcomes:

- 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 re-use of grey water in households and communities.
- Demonstrate repair related activities for soak pits and kitchen gardens.

Duration: *22:00*	**Duration**: *36:00*
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 toavoid 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 re-use 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:

- 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: *26:00*	**Duration**: *32:00*
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

Terminal Outcomes:

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

Duration: *28:00*	**Duration**: *34:00*
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: *24:00*	**Duration**: *34:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of planning andtime management. • Discuss the process of planning forefficient 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 maintainingrecords of materials consumed and inventory. • Explain the basic accounting principles for micro enterprise. • Explain how to calculate margins and cash-flow. • Discuss the opportunities forincreasing 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

Terminal Outcomes:

- 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: *16:00*	**Duration**: *32:00*
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, CO_2, 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

Terminal Outcomes:

- 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 behaviours indicating respect for all genders and PwD.

Duration: *16:00*	**Duration**: *32:00*
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: Optimum utilisation of resources

Mapped to SGJ/N1702, v 1.0

Terminal Outcomes:

- Use the material in an optimum way at work.
- Use energy/electricity optimally at work.
- Employ practices for minimization of waste generation.
- Demonstrate the process of waste disposal as per industry approved standards.

Duration: *08:00*	**Duration**: *16:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the practices and impact of inefficient utilization of material and water. • Describe ways of efficiently managing material and water in the process. • Explain the basics of electricity. • List common electrical and thermal equipment used in a plumbing workplace. • Describe the use of prevalent energy efficient devices. • List indicators of common electrical problems. • Discuss common practices of conserving electricity. • Explain the importance of checking if the equipment/machine is functioning normally before commencing work and ensuring it is rectified. • Explain the usage of different colours of dustbins. • Differentiate between recyclable and non-recyclable, and hazardous waste generated. • Discuss efficient waste management practices. • Discuss the common ways employed by organizations, to minimize waste generated from plumbing activities. • Discuss common sources of pollution and ways to minimize it • Explain the importance of reporting malfunctioning (fumes /sparks /emission /vibration /noise) and lapse in the maintenance of equipment on time.	• Identify ways to optimize usage of water and other materials in various tasks/activities/processes. • Perform inspection to check for spills/leakages at a workplace. • Apply various material conservation practices with respect to plumbing work. • Perform inspection of the work area for improperly connected electrical equipment. • Apply appropriate techniques to use energy/electricity in an optimum way. • Categorize waste into dry, wet, recyclable, non-recyclable and items of single-use plastics. • Employ effective waste management / recycling practices.
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 Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
B. Tech/ B.E.	Civil or Mechanical Engineering	3	Plumbing	2	Plumbing	
Diploma	Civil or Mechanical Engineering	5	Plumbing	2	Plumbing	

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "Jal Mitra" mapped to QP: "PSC/Q0117, v1.0". 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

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
B. Tech/ B.E.	Civil or Mechanical Engineering	5	Plumbing	2	Plumbing	
Diploma	Civil or Mechanical Engineering	7	Plumbing	2	Plumbing	

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "Jal Mitra" mapped to QP: "PSC/Q0117, v1.0". 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

Glossary

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**.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand 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