



# Model Curriculum

**QP Name: Mechanical Engineering & Plumbing General Manager**

**QP Code: ELE/Q7103**

**QP Version: 2.0**

**NSQF Level: 7**

**Model Curriculum Version: 2.0**

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## Training Parameters

|   |   |
|---|---|
| <b>Sector</b>   | Electronics   |
| <b>Sub-Sector</b>                                       | Industrial Automation   |
| <b>Occupation</b>                                       | Engineering-I&A   |
| <b>Country</b>  | India   |
| <b>NSQF Level</b>                                       | 7   |
| <b>Aligned to NCO/ISCO/ISIC Code</b>                    | NCO-2015/7411.0100  |
| <b>Minimum Educational Qualification and Experience</b> | Completed 4 year UG program with 2 Years of experience relevant experience<br>OR<br>Previous relevant Qualification of NSQF Level (6) with 3 Years of relevant experience<br>OR<br>Pursuing PhD with NA of experience |
| <b>Pre-Requisite License or Training</b>                | NA  |
| <b>Minimum Job Entry Age</b>                            | 21 Years  |
| <b>Last Reviewed On</b>                                 | 24.02.2022  |
| <b>Next Review Date</b>                                 | 24.02.2025  |
| <b>NSQC Approval Date</b>                               | 24.02.2022  |
| <b>QP Version</b>                                       | 2.0   |
| <b>Model Curriculum Creation Date</b>                   | 24.02.2022  |
| <b>Model Curriculum Valid Up to Date</b>                | 24.02.2025  |
| <b>Model Curriculum Version</b>                         | 2.0   |
| <b>Maximum Duration of the Course</b>                   | 1260 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:

- Describe the process of managing the tendering, sub-contracting and planning processes.
- Describe the process of managing the MEP project execution, commissioning, testing and handover processes.
- Demonstrate the process of carrying out internal organisational-level responsibilities.
- Explain the importance of following inclusive practices for all genders and PwD at work.
- Demonstrate various practices to be followed to maintain health and safety at work.

### 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 (Recommended) | On-the-Job Training Duration (Mandatory) | Total Duration |
|--|-----------------|--------------------|--|--|----------------|
| <i>Bridge Module</i>   | 69:00           | 81:00              | 00:00                                      | 00:00                                    | 150:00         |
| Module 1: Introduction to the role of an MEP General Manager                                     | 69:00           | 81:00              | 00:00                                      | 00:00                                    | 150:00         |
| <b>ELE/N7106 Manage the tendering, sub-contracting and planning processes for MEP projects</b>   | 90:00           | 150:00             | 00:00                                      | 90:00                                    | 330:00         |
| Module 2: Management of tendering, sub-contracting and planning processes for MEP projects       | 90:00           | 150:00             | 00:00                                      | 90:00                                    | 330:00         |
| <b>ELE/N7107 Manage the MEP project execution, commissioning, testing and handover processes</b> | 90:00           | 150:00             | 00:00                                      | 90:00                                    | 330:00         |
| Module 3: Management of MEP project execution, commissioning, testing                            | 90:00           | 150:00             | 00:00                                      | 90:00                                    | 330:00         |

|   |               |               |              |               |                |
|---|---------------|---------------|--------------|---------------|----------------|
| and handover processes  |               |               |              |               |                |
| <b>ELE/N7108 Carry out internal organizational-level responsibilities</b> | <b>60:00</b>  | <b>150:00</b> | <b>00:00</b> | <b>120:00</b> | <b>330:00</b>  |
| Module 4: Internal organizational-level responsibilities                  | 60:00         | 150:00        | 00:00        | 120:00        | 330:00         |
| <b>ELE/N1002 Apply health and safety practices at the workplace</b>       | <b>15:00</b>  | <b>15:00</b>  | <b>00:00</b> | <b>00:00</b>  | <b>30:00</b>   |
| Module 5: Basic Health and Safety Practice                                | 15:00         | 15:00         | 00:00        | 00:00         | 30:00          |
| <b>DGT/VSQ/N0103- Employability Skills (90 Hours)</b>                     | <b>36:00</b>  | <b>54:00</b>  | <b>00:00</b> | <b>00:00</b>  | <b>90:00</b>   |
| Module 6: Employability Skills (90 Hours)                                 | 36:00         | 54:00         | 00:00        | 00:00         | 90:00          |
| <b>Total Duration</b>   | <b>360:00</b> | <b>600:00</b> | <b>00:00</b> | <b>300:00</b> | <b>1260:00</b> |

# Module Details

## Module 1: Introduction to the role of an MEP General Manager

### Bridge Module

#### Terminal Outcomes:

- Discuss the job role of a Mechanical, Engineering and Plumbing (MEP) General Manager.

| <b>Duration: 69:00</b>  | <b>Duration: 81:00</b>   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Describe the size and scope of the Electronics industry and its sub-sectors.</li> <li>• Discuss the role and responsibilities of an MEP General Manager.</li> <li>• Describe various employment opportunities for an MEP General Manager.</li> </ul> | <ul style="list-style-type: none"> <li>• Discussion on Mechanical Concepts</li> <li>• Familiarization with Engineering Field and Activities</li> <li>• Familiarization with Plumbing and tools used</li> </ul> |
| <b>Classroom Aids</b>   |  |
| Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop  |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| NA  |  |

## Module 2: Management of tendering, sub-contracting and planning processes for MEP projects

### Mapped to ELE/N7106

#### Terminal Outcomes:

- Demonstrate the process of selecting tenders and preparing the tender proposal.
- Illustrate the process of submitting the tender proposal and making presentations.
- Describe the process of selecting the sub-contractors.
- Demonstrate the process of carrying out planning for the delivery of the MEP project.

| <b>Duration: 90:00</b>   | <b>Duration: 150:00</b>   |
|--|---|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Describe the process of identifying suitable MEP tenders and determining the scope of work.</li> <li>• Describe the process of preparation of MEP shop drawing, specification and Bill of Quantities (BOQ) along with budgeting.</li> <li>• Describe the process of analysing the blueprints, project documents and specifications to prepare accurate cost, materials and labour estimates for all projects.</li> <li>• Explain how to prepare the tender proposal and use appropriate software tools for the purpose.</li> <li>• Describe the process of submitting the tender proposal, make presentations and conducting negotiations.</li> <li>• List the relevant documentation to be completed on winning a contract.</li> <li>• Describe the process of inviting bids and selecting sub-contractors.</li> <li>• Describe the process of planning the delivery of MEP project such as preparing the MEP design, seeking approval of BOQ, Goods for Construction (GFC)/ General Arrangement (GA) drawings and shop drawings, resource procurement and scheduling.</li> <li>• Explain the importance of selecting a team of skilled managers, engineers</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the process of analysing the tenders and shortlisting those that the organisation is eligible to apply for, establishing the scope of work and any specific requirements.</li> <li>• Dramatize the process of analysing the blueprints, project documents and specifications to prepare accurate cost, materials and labour estimates for all project stages.</li> <li>• Demonstrate how to prepare Tender Check Estimates (TCE) for contracts and bills of materials, including Electrical, Mechanical and Plumbing quantities, drawings, and technical specifications.</li> <li>• Demonstrate how to perform detailed calculations to compute and establish construction and installation standards and specifications.</li> <li>• Demonstrate how to prepare the tender proposal in the prescribed format.</li> <li>• Roleplay how to carry out presentations and negotiations with the prospective client.</li> <li>• Demonstrate the process of carrying out necessary documentation after winning the bid and soliciting feedback for the failed bids.</li> <li>• Dramatize how to prepare customised bids and take-offs/ Bill of Quantities (BOQ) for MEP sub-</li> </ul> |

|   |  |
|---|--|
| <p>and support staff to work on the execution of MEP projects.</p> <ul style="list-style-type: none"> <li>• Elaborate the use of various software tools for planning and scheduling.</li> </ul> | <p>contractors.</p> <ul style="list-style-type: none"> <li>• Dramatize how to evaluate the bids to shortlist sub-contractors and finalise a sub-contractor.</li> <li>• Demonstrate the process of carrying out planning and scheduling according to the Service Level Agreement (SLA) signed with the client.</li> </ul> |
| <p><b>Classroom Aids</b></p>  |  |
| <p>Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop</p>   |  |
| <p><b>Tools, Equipment and Other Requirements</b></p>   |  |
| <p>Mechanical, Electrical, And Plumbing Components such as Elevators, Escalators, Heating and Air-Conditioning Systems, Heating and Cooling Changed</p>   |  |



## Module 3: Management of MEP project execution, commissioning, testing and handover processes

*Mapped to ELE/N7107*

### Terminal Outcomes:

- Demonstrate the process of managing MEP installation, commissioning, testing and handover process.
- Describe the process of managing the client and sub-contractor relationships.
- Demonstrate the process of carrying out documentation.

| <b>Duration: 90:00</b>   | <b>Duration: 150:00</b>   |
|--|---|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Describe the process of obtaining the fire No Objection Certificate (NOC) and Occupancy Certificate (OC) from the relevant authorities.</li> <li>• Describe the process of installation of various systems such as STP, WTP, HVAC and lifts.</li> <li>• Elaborate the process of installation of various equipment such as a substation, High Tension (HT)/ Low Tension (LT) Panels, Transformer, Diesel Generator (DG) sets.</li> <li>• Describe the process of conduiting, electrical wiring, rising main and other internal low side and high side electrical work.</li> <li>• Explain the importance and process of installing LV distribution, lighting and power circuits, telephone/ data system, access control etc.</li> <li>• Explain the importance of monitoring the execution of MEP work.</li> <li>• Describe the process of commissioning and testing various MEP systems and equipment.</li> <li>• Describe the process of handing over after the completion of MEP installation and the necessary documentation to be done.</li> <li>• Explain the importance of auditing the performance of MEP sub-contractors.</li> <li>• Explain the importance of ensuring</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the process of managing the installation of various systems such as Sewage Treatment Plant (STP), Waste Treatment Plant (WTP), Heating, Ventilation, and Airconditioning (HVAC) and lifts.</li> <li>• Demonstrate the process of managing the installation of various equipment such as a substation, High Tension (HT)/ Low Tension (LT) Panels, Transformer, Diesel Generator (DG) sets.</li> <li>• Dramatize how to manage the MEP execution, commissioning and testing process through coordination with the relevant personnel and departments.</li> <li>• Demonstrate the process of carrying out post-tender activities until the handing over and completion of the defects liability period of the project.</li> <li>• Demonstrate the process of auditing the performance of MEP sub-contractors and take appropriate action as required.</li> <li>• Demonstrate the process of verifying the MEP contractors bills and co-ordinate with the finance team for their processing.</li> <li>• Prepare sample reports such as project progress reports using the relevant software tools.</li> </ul> |

|   |  |
|---|--|
| <p>compliance with the regulatory and organisation's Quality, Health, Safety and Environment (QHSE) guidelines.</p> <ul style="list-style-type: none"> <li>• Explain the importance and process of preparing and reviewing the relevant MEP project-related reports.</li> </ul> |  |
| <p><b>Classroom Aids</b></p>  |  |
| <p>Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop</p>   |  |
| <p><b>Tools, Equipment and Other Requirements</b></p>   |  |
| <p>Mechanical, Electrical, And Plumbing Components such as Elevators, Escalators, Heating and Air-Conditioning Systems, Heating and Cooling Changed</p>   |  |

## Module 4: Internal organisational-level responsibilities

### Mapped to ELE/N7108

#### Terminal Outcomes:

- Describe the process of managing staffing and daily operations.
- Explain the importance of arranging for the training of the MEP team and mentoring them.
- Describe the process of managing the department finances.
- Describe the process of carrying out miscellaneous managerial responsibilities.

| Duration: 60:00  | Duration: 150:00  |
|--|---|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes   |
| <ul style="list-style-type: none"> <li>• Describe the process of developing key performance goals for functions and direct reports.</li> <li>• Describe the process of staffing and ensuring staff with the required skills are deployed at different levels of project delivery.</li> <li>• Describe the process of identifying knowledge and skills gaps among the various MEP departments in the organisation through internal audits and surveys.</li> <li>• Explain the importance of arranging regular training for the MEP workforce and mentoring them.</li> <li>• Explain how to carry out budgeting, production planning, and maintain inventory levels.</li> <li>• Outline profit and Loss (P&amp;L) management.</li> <li>• Describe the process of devising strategies for business growth and seeking the approval of the (BOD).</li> <li>• Explain the importance of analysing the expenditure to ensure compliance with the set budget.</li> <li>• Describe the process of carrying out a risk assessment and contingency planning.</li> <li>• Explain the importance of ensuring control on the distribution of information among the client, internal departments and sub-contractors.</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the process of managing the daily operations of the business unit such as budgeting, production planning, inventory management.</li> <li>• Roleplay how to lead and mentor a team of mechanical and electrical managers to achieve the best results in line with the agreed goals.</li> <li>• Demonstrate the process of carrying out Profit and Loss (P&amp;L) management and devise strategies to grow the business.</li> <li>• Demonstrate the process of reviewing and analysing the expenditure.</li> <li>• Demonstrate the process of carrying out a risk assessment and contingency planning, and communicate the same to internal and external stakeholders.</li> <li>• Dramatize how to develop and execute strategies to identify and connect with potential clients.</li> </ul> |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Elaborate how to streamline business processes and develop effective operations plans to achieve the organisational objectives.</li> <li>• Describe the process of developing and executing strategies to identify and connect with potential clients.</li> </ul> |  |
| <p><b>Classroom Aids</b></p>   |  |
| <p>Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop</p>  |  |
| <p><b>Tools, Equipment and Other Requirements</b></p>  |  |
| <p>Mechanical, Electrical, And Plumbing Components such as Elevators, Escalators, Heating and Air-Conditioning Systems, Heating and Cooling Changed</p>  |  |

## Module 5: Basic Health and Safety Practice

### Mapped to ELE/N1002

#### Terminal Outcomes:

- Apply health and safety practices at the workplace.

| Duration: 15:00   | Duration: 15:00   |
|---|---|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes   |
| <ul style="list-style-type: none"> <li>• Discuss job-site hazards, risks and accidents.</li> <li>• Explain the organizational safety procedures for maintaining electrical safety, handling tools and hazardous materials.</li> <li>• Elaborate on electronic waste disposal procedures.</li> <li>• Describe the process of disposal of hazardous waste</li> <li>• List the name and location of concerned people, documents and equipment for maintaining health and safety in the workplace.</li> <li>• Describe how to interpret warning signs while accessing sensitive work areas.</li> <li>• Explain the importance of good housekeeping.</li> <li>• Describe the importance of maintaining appropriate postures while lifting heavy objects.</li> <li>• List the types of fire and fire extinguishers.</li> <li>• Explain the importance of efficient utilisation of water, electricity and other resources.</li> <li>• List the common sources of pollution and ways to minimize it.</li> <li>• Describe the concept of waste management and methods of disposing hazardous waste.</li> <li>• Explain various warning and safety signs.</li> <li>• Describe different ways of preventing accidents at the workplace.</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the use of protective equipment suitable as per tasks and work conditions.</li> <li>• Prepare a report to inform the relevant authorities about any abnormal situation/behaviour of any equipment/system.</li> <li>• Administer first aid in case of a minor accident.</li> <li>• Demonstrate the steps to free a person from electrocution safely.</li> <li>• Administer Cardiopulmonary Resuscitation (CPR).</li> <li>• Demonstrate the application of defined emergency procedures such as raising alarm, safe/efficient, evacuation, moving injured people, etc.</li> <li>• Prepare a sample incident report.</li> <li>• Use a fire extinguisher in case of a fire incident.</li> <li>• Demonstrate the correct method of lifting and handling heavy objects.</li> </ul> |

| <b>Classroom Aids</b>  |
|--|
| Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop   |
| <b>Tools, Equipment and Other Requirements</b>   |
| Personal Protection Equipment: Safety Glasses, Head Protection, Rubber Gloves, Safety Footwear, Warning Signs and Tapes, Fire Extinguisher, First Aid Kit, Fire Extinguishers and Warning Signs. |

## Module 6: Employability Skills (90 Hours)

### Mapped to DGT/VSQ/N0103

#### Terminal Outcomes:

- Discuss about Employability Skills in meeting the job requirements
- Describe opportunities as an entrepreneur.
- Describe ways of preparing for apprenticeship & Jobs appropriately.

| <b>Duration: 36:00</b>  | <b>Duration: 54:00</b>  |
|---|---|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Explain constitutional values, civic rights, responsibility towards society to become a responsible citizen</li> <li>• Discuss 21<sup>st</sup> century skills</li> <li>• Explain use of basic English phrases and sentences.</li> <li>• Demonstrate how to communicate in a well-behaved manner</li> <li>• Demonstrate how to work with others</li> <li>• Demonstrate how to operate digital devices</li> <li>• Discuss the significance of Internet and Computer/ Laptops</li> <li>• Discuss the need for identifying business opportunities</li> <li>• Discuss about types of customers.</li> <li>• Discuss on creation of biodata</li> <li>• Discuss about apprenticeship and opportunities related to it.</li> </ul> | <ul style="list-style-type: none"> <li>• List different learning and employability related GOI and private portals and their usage</li> <li>• Show how to practice different environmentally sustainable practices.</li> <li>• Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, etc.</li> <li>• Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone</li> <li>• Demonstrate how to communicate in a well-mannered way with others.</li> <li>• Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette</li> <li>• Utilize virtual collaboration tools to work effectively</li> <li>• Demonstrate how to maintain hygiene and dressing appropriately.</li> <li>• Perform a mock interview</li> </ul> |
| <b>Classroom Aids</b>   |   |
| Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop  |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| Computer, UPS, Scanner, Computer Tables, LCD Projector, Computer Chairs, White Board  |   |
| OR  |   |
| Computer Lab  |   |

## Module 7: On-the-Job Training

### Mapped to MEP General Manager

|   |                                    |
|---|------------------------------------|
| <b>Mandatory Duration: 300:00</b>   | <b>Recommended Duration: 00:00</b> |
| <b>Location: On-Site</b>  |                                    |
| <p><b>Terminal Outcomes</b></p> <ol style="list-style-type: none"> <li>1. Demonstrate how to select, analyse and shortlist the tenders.</li> <li>2. Prepare Tender Check Estimates (TCE) for contracts and bill of materials</li> <li>3. Prepare the tender proposal in the prescribed format, highlighting the organisation's eligibility for the tender.</li> <li>4. Prepare customised bids and take-offs/ Bill of Quantities (BOQ) for MEP sub-contractors.</li> <li>5. Manage the installation of various systems and equipment such as Sewage Treatment Plant (STP), Waste Treatment Plant (WTP) and High Tension (HT)/ Low Tension (LT) Panels, Transformer, Diesel Generator (DG) sets.</li> <li>6. Perform all post-tender activities until the handing over and completion of the defects liability period of the project.</li> <li>7. Audit the performance of MEP sub-contractors and take appropriate action as required.</li> <li>8. Lead and mentor a team of mechanical and electrical managers to achieve the best results.</li> <li>9. Perform budgeting, production planning, staffing, and maintain inventory levels.</li> <li>10. Perform risk assessment and contingency planning, and communicate the same to internal and external stakeholders.</li> </ol> |                                    |



# Annexure

## Trainer Requirements

| Trainer Prerequisites                              |   |                              |                       |                     |                |         |
|--|---|------------------------------|-----------------------|---------------------|----------------|---------|
| Minimum Educational Qualification                  | Specialization                                    | Relevant Industry Experience |                       | Training Experience |                | Remarks |
|  |   | Years                        | Specialization        | Years               | Specialization |         |
| B.E./ B. Tech/<br>Certified in relevant CITS Trade | (Degree in Electrical or Electronics Engineering) | 7                            | Industrial Automation | 2                   | Electronics    |         |

| Trainer Certification  |  |
|--|--|
| Domain Certification   | Platform Certification   |
| <p>“MEP General Manager”, “ELE/Q7103, v2.0”,<br/>Minimum accepted score is 80%</p> | <p>Recommended that the Trainer is certified for the <b>MEP General Manager</b> “Trainer (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2601, V2.0”, with minimum score of 80%</p> |

## Assessor Requirements

| Assessor Prerequisites                                   |  |                              |                          |                                |                |         |
|--|--|------------------------------|--------------------------|--------------------------------|----------------|---------|
| Minimum Educational Qualification                        | Specialization   | Relevant Industry Experience |                          | Training/Assessment Experience |                | Remarks |
|  |  | Years                        | Specialization           | Years                          | Specialization |         |
| B.E./ B. Tech/<br>Certified in<br>relevant CITS<br>Trade | (Degree in<br>Electrical or<br>Electronics<br>Engineering) | 9                            | Industrial<br>Automation | 2                              | Electronics    |         |

| Assessor Certification   |   |
|--|---|
| Domain Certification   | Platform Certification  |
| <p>“MEP General Manager”, “ELE/Q7103, v2.0”,<br/>Minimum accepted score is 80%</p> | <p>Recommended that the Assessor is certified for the <b>MEP General Manager</b>“Assessor (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, V2.0”, with minimum score of 80%</p> |

## Assessment Strategy

### 1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SDMS/SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- The assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records

### 2. Testing Environment

To ensure a conducive environment for conducting a test, the trainer will:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be 10 a.m. and 5 p.m. respectively
- Ensure there are 2 Assessors if the batch size is more than 30.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

### 3. Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME verified by the other subject Matter Experts
- Questions are mapped with NOS and PC
- Question papers are prepared considering that levels 1 to 3 are for the unskilled & semi-skilled individuals, and levels 4 and above are for the skilled, supervisor & higher management
- The assessor must be ToA certified and the trainer must be ToT Certified
- The assessment agency must follow the assessment guidelines to conduct the assessment

### 4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Centre photographs with signboards and scheme-specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

### 5. Method of verification or validation:

To verify the details submitted by the training centre, the assessor will undertake:

- A surprise visit to the assessment location
- A random audit of the batch
- A random audit of any candidate

### 6. Method for assessment documentation, archiving, and access

To protect the assessment papers and information, the assessor will ensure:

- Hard copies of the documents are stored

- Soft copies of the documents & photographs of the assessment are uploaded/accessed from Cloud Storage
- Soft copies of the documents & photographs of the assessment are stored on the Hard drive

# References

## Glossary

| Term                         | Description   |
|------------------------------|---|
| <b>Declarative knowledge</b> | 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.   |
| <b>Key Learning</b>          | The 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). |
| <b>OJT (M)</b>               | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site  |
| <b>OJT (R)</b>               | On-the-job training (Recommended); trainees are recommended the specified hours of training on-site   |
| <b>Procedural Knowledge</b>  | Procedural knowledge addresses how to do something, or how to perform a   |
| <b>Training Outcome</b>      | Training outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of the training.</b>   |
| <b>Terminal Outcome</b>      | The terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module.</b> A set of terminal outcomes help to achieve the training outcome.  |

## Acronyms and Abbreviations

| Term | Description                                    |
|------|--|
| BOQ  | Bill of Quantities                             |
| DC   | Direct Current                                 |
| DG   | Diesel Generator                               |
| GA   | General Arrangement                            |
| GFC  | Goods for Construction                         |
| HT   | High Tension                                   |
| HVAC | Heating, Ventilation, and Airconditioning      |
| ISO  | International Organization for Standardization |
| LT   | Low Tension                                    |
| MEP  | Mechanical, Engineering and Plumbing           |
| NOC  | No Objection Certificate                       |
| NCO  | National Occupational Standards                |
| NOS  | National Skills Qualification Committee        |
| NSQF | National Skills Qualification Framework        |
| OC   | Occupancy Certificate                          |
| OJT  | On-the-Job Training                            |
| OMR  | Optical Mark Recognition                       |
| P&L  | Profit & Loss                                  |
| PC   | Performance Criteria                           |
| PwD  | Persons with Disabilities                      |
| QP   | Qualification Pack                             |
| QHSE | Quality, Health, Safety and Environment        |
| STP  | Sewage Treatment Plant                         |
| SLA  | Service Level Agreement                        |
| SDMS | Skill Development & Management System          |
| SIP  | Skill India Portal                             |
| SME  | Small and Medium Enterprises                   |
| SOP  | Standard Operating Procedure                   |
| SSC  | Sector Skill Council                           |
| TC   | Trainer Certificate                            |
| TCE  | Tender Check Estimates                         |
| ToA  | Training of Assessors                          |
| ToT  | Training of Trainers                           |
| TP   | Training Provider                              |
| WTP  | Waste Treatment Plant                          |