# Mechanical Engineering and Plumbing General Manager

QP Code: ELE/Q7103

Version: 2.0

NSQF Level: 7

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# Contents

**Qualification Pack**

# ELE/Q7103: Mechanical Engineering and Plumbing General Manager

## Brief Job Description

An Mechanical Engineering and Plumbing (MEP) General Manager is responsible for planning, managing, monitoring and execution of Mechanical Engineering and Plumbing (MEP) projects at the client premises. The individual is also responsible for preparing the tender proposal and making presentations to secure MEP contracts, identifying the training needs of company personnel and arranging training, recruitments, risk assessment, Profit & Loss (P&L) management, etc.

## Personal Attributes

The individual must have managerial, organisational and problem-solving skills. The person must have good written and verbal communication skills with the ability to multi-task and coordinate with multiple parties simultaneously to achieve the work objectives.

## Applicable National Occupational Standards (NOS)

### Compulsory NOS:

1. ELE/N7106: Manage the tendering, sub-contracting and planning processes for MEP projects

2. ELE/N7107: Manage the MEP project execution, commissioning, testing and handover processes

3. ELE/N7108: Carry out internal organisational-level responsibilities

4. ELE/N1002: Apply health and safety practices at the workplace

5. DGT/VSQ/N0103: Employability Skills (90 Hours)

## Qualification Pack (QP) Parameters

| | |
|---|---|
| **Sector** | Electronics |
| **Sub-Sector** | Industrial Automation |
| **Occupation** | Engineering-I&A |
| **Country** | India |
| **NSQF Level** | 7 |
| **Credits** | 42 |

| Aligned to NCO/ISCO/ISIC Code | NCO-2015/7411.0100 |
|---|---|
| Minimum Educational Qualification & Experience | 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 experience relevant experience<br>OR<br>Pursuing PhD with NA of experience |
| Minimum Level of Education for Training in School | Not Applicable |
| Pre-Requisite License or Training | NA |
| Minimum Job Entry Age | 21 Years |
| Last Reviewed On | NA |
| Next Review Date | 03/05/2026 |
| NSQC Approval Date | 03/05/2023 |
| Version | 2.0 |
| Reference code on NQR | QG-07-EH-00425-2023-V1.1-ESSC |
| NQR Version | 1.0 |

**Remarks:**

| NA |
|---|

# ELE/N7106: Manage the tendering, sub-contracting and planning processes for MEP projects

## Description

This OS unit is about preparing the tender proposal for MEP projects and making presentations to potential clients. It also covers the selection of sub-contractors and planning the delivery of MEP projects.

## Scope

The scope covers the following :

- Select tenders and prepare the tender proposal
- Submit the tender proposal and make presentations
- Select the sub-contractors
- Carry out planning for the delivery of MEP project

## Elements and Performance Criteria

### Select tenders and prepare the tender proposal

To be competent, the user/individual on the job must be able to:

**PC1.** analyse the tenders and shortlist those that the organisation is eligible to apply for, establishing the scope of work and any specific requirements

**PC2.** manage the preparation of MEP shop drawing, specification and Bill of Quantities (BOQ) along with budgeting

**PC3.** analyse the blueprints, project documents and specifications to prepare accurate cost, materials and labour estimates for all project stages

**PC4.** prepare Tender Check Estimates (TCE) for contracts and bill of materials, including Electrical, Mechanical and Plumbing quantities, drawings, and technical specifications

**PC5.** perform detailed calculations to compute and establish construction and installation standards and specifications

**PC6.** prepare the tender proposal in the prescribed format using the appropriate software tool, highlighting the organisation's eligibility for the tender along with information about the projects delivered successfully and the organisation's clientele, ensuring the accuracy of the information

### Submit the tender proposal and make presentations

To be competent, the user/individual on the job must be able to:

**PC7.** analyse the MEP drawings and sketches during proposal preparation for the quotation purpose

**PC8.** submit the tender proposal documents to the prospective client following the prescribed tendering process

**PC9.** carry out presentations and negotiations with the prospective client

**PC10.** carry out necessary documentation with the client after winning the bid

**PC11.** solicit feedback for the failed bids to identify the areas of improvement

### Select the sub-contractors

To be competent, the user/individual on the job must be able to:

**PC12.** identify the area of MEP work that will require sub-contracting

**PC13.** prepare customised bids and take-offs/ Bill of Quantities (BOQ) for MEP sub-contractors

**PC14.** invite bids from potential sub-contractors

**PC15.** evaluate the bids to shortlist sub-contractors and finalise a sub-contractor

**PC16.** carry out the necessary documentation and hand over the sub-contract to the eligible sub-contractor

*Carry out planning for the delivery of MEP project*

To be competent, the user/individual on the job must be able to:

**PC17.** manage the MEP design process between internal teams, clients and subcontractors

**PC18.** coordinate with the client and relevant departments in the organisation for the approval of BOQ, Goods for Construction (GFC)/ General Arrangement (GA) drawings and shop drawings

**PC19.** co-ordinate with the procurement team to ensure the required resources are procured for the completion of the MEP project, ensuring the adequacy of the resources for the timely completion of the project

**PC20.** select a team of skilled managers, engineers and support staff to work on the execution of the project

**PC21.** provide inputs for effective planning and scheduling of MEP project

**PC22.** carry out planning and scheduling using the relevant software tools, according to the Service Level Agreement (SLA) signed with the client

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** the process of identifying suitable MEP tenders and determining the scope of work

**KU2.** the process of preparation of MEP shop drawing, specification and Bill of Quantities (BOQ) along with budgeting

**KU3.** the process of analysing the blueprints, project documents and specifications to prepare accurate cost, materials and labour estimates for all project the process of preparing the Tender Check Estimates (TCE) for the contract, bill of materials and cost estimates for MEP systems and equipment

**KU4.** how to prepare the tender proposal and use of appropriate software tool for the purpose

**KU5.** the process of submitting the tender proposal, making presentations and conducting negotiations

**KU6.** the relevant documentation to be completed on winning a contract

**KU7.** the process of inviting bids and selecting sub-contractors

**KU8.** 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

**KU9.** the importance of selecting a team of skilled managers, engineers and support staff to work on the execution of MEP projects

**KU10.** use of the relevant software tools for planning and scheduling

**Generic Skills (GS)**

User/individual on the job needs to know how to:

**GS1.** prepare work-related documents and reports

**GS2.** communicate politely and professionally

**GS3.** read the relevant literature to keep abreast with the latest developments in the field of work

**GS4.** listen attentively to understand the client requirements

**GS5.** co-ordinate with co-workers to achieve the work objectives

**GS6.** plan and prioritise tasks to ensure timely completion

**GS7.** take quick decisions to deal with workplace emergencies/ accidents

**GS8.** identify possible disruptions to work and take preventive measures

## Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| *Select tenders and prepare the tender proposal* | **10** | **10** | **-** | **10** |
| **PC1.** analyse the tenders and shortlist those that the organisation is eligible to apply for, establishing the scope of work and any specific requirements | - | - | - | - |
| **PC2.** manage the preparation of MEP shop drawing, specification and Bill of Quantities (BOQ) along with budgeting | - | - | - | - |
| **PC3.** analyse the blueprints, project documents and specifications to prepare accurate cost, materials and labour estimates for all project stages | - | - | - | - |
| **PC4.** prepare Tender Check Estimates (TCE) for contracts and bill of materials, including Electrical, Mechanical and Plumbing quantities, drawings, and technical specifications | - | - | - | - |
| **PC5.** perform detailed calculations to compute and establish construction and installation standards and specifications | - | - | - | - |
| **PC6.** prepare the tender proposal in the prescribed format using the appropriate software tool, highlighting the organisation's eligibility for the tender along with information about the projects delivered successfully and the organisation's clientele, ensuring the accuracy of the information | - | - | - | - |
| *Submit the tender proposal and make presentations* | **5** | **10** | **-** | **5** |
| **PC7.** analyse the MEP drawings and sketches during proposal preparation for the quotation purpose | - | - | - | - |
| **PC8.** submit the tender proposal documents to the prospective client following the prescribed tendering process | - | - | - | - |
| **PC9.** carry out presentations and negotiations with the prospective client | - | - | - | - |

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC10.** carry out necessary documentation with the client after winning the bid | - | - | - | - |
| **PC11.** solicit feedback for the failed bids to identify the areas of improvement | - | - | - | - |
| *Select the sub-contractors* | **5** | **10** | **-** | **5** |
| **PC12.** identify the area of MEP work that will require sub-contracting | - | - | - | - |
| **PC13.** prepare customised bids and take-offs/ Bill of Quantities (BOQ) for MEP sub-contractors | - | - | - | - |
| **PC14.** invite bids from potential sub-contractors | - | - | - | - |
| **PC15.** evaluate the bids to shortlist sub-contractors and finalise a sub-contractor | - | - | - | - |
| **PC16.** carry out the necessary documentation and hand over the sub-contract to the eligible sub-contractor | - | - | - | - |
| *Carry out planning for the delivery of MEP project* | **10** | **10** | **-** | **10** |
| **PC17.** manage the MEP design process between internal teams, clients and subcontractors | - | - | - | - |
| **PC18.** coordinate with the client and relevant departments in the organisation for the approval of BOQ, Goods for Construction (GFC)/ General Arrangement (GA) drawings and shop drawings | - | - | - | - |
| **PC19.** co-ordinate with the procurement team to ensure the required resources are procured for the completion of the MEP project, ensuring the adequacy of the resources for the timely completion of the project | - | - | - | - |
| **PC20.** select a team of skilled managers, engineers and support staff to work on the execution of the project | - | - | - | - |
| **PC21.** provide inputs for effective planning and scheduling of MEP project | - | - | - | - |

**Qualification Pack**

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC22.** carry out planning and scheduling using the relevant software tools, according to the Service Level Agreement (SLA) signed with the client | - | - | - | - |
| **NOS Total** | **30** | **40** | **-** | **30** |

## National Occupational Standards (NOS) Parameters

| | |
|---|---|
| **NOS Code** | ELE/N7106 |
| **NOS Name** | Manage the tendering, sub-contracting and planning processes for MEP projects |
| **Sector** | Electronics |
| **Sub-Sector** | Industrial Automation |
| **Occupation** | Engineering-I&A |
| **NSQF Level** | 7 |
| **Credits** | TBD |
| **Version** | 1.0 |
| **Last Reviewed Date** | 24/02/2022 |
| **Next Review Date** | 03/05/2026 |
| **NSQC Clearance Date** | 03/05/2023 |

# ELE/N7107: Manage the MEP project execution, commissioning, testing and handover processes

## Description

This OS unit is about managing the MEP installation, commissioning, testing and handover processes while ensuring compliance with the applicable standards.

## Scope

The scope covers the following :

- Manage MEP installation, commissioning, testing and handover process
- Manage the client and sub-contractor relationships
- Carry out documentation

## Elements and Performance Criteria

### Manage MEP installation, commissioning, testing and handover process

To be competent, the user/individual on the job must be able to:

**PC1.** co-ordinate with the relevant authorities to obtain the fire No Objection Certificate (NOC), Occupancy Certificate (OC) and any other relevant statutory permissions/licenses

**PC2.** manage the installation of various systems such as plumbing, firefighting system, Sewage Treatment Plant (STP), Waste Treatment Plant (WTP), Heating, Ventilation, and Air-conditioning (HVAC) and lifts

**PC3.** manage the installation of various equipment such as a substation, High Tension (HT)/ Low Tension (LT) Panels, Transformer, Diesel Generator (DG) sets, bus duct, meter board panels, fire alarm system, etc.

**PC4.** ensure conduiting, electrical wiring, rising main and other internal low side and high side electrical work is carried out appropriately

**PC5.** ensure the installation of LV distribution, lighting and power circuits, telephone/ data system, access control, Public Address (PA) system, CCTV, cable management, earthing and lightning protection system is carried out as per the shop drawing and client requirements

**PC6.** manage the MEP execution, commissioning and testing processes through coordination with the internal teams, sub- contractors and client, such as work order amendments when required

**PC7.** ensure adherence to the design, Bill of Quantities (BOQ) specifications, industry standards, local and international building codes, Quality Control (QC) procedures, planned timelines and consistency with the company strategy and goals in line with the allotted budget

**PC8.** implement corrective measures to deal with any deviations and delays in project delivery

**PC9.** compile the necessary documents for handover and check their accuracy

**PC10.** perform all post-tender activities until the handing over and completion of the defects liability period of the project

**PC11.** carry out handover to the client following the agreed process

### Manage the client and sub-contractor relationships

To be competent, the user/individual on the job must be able to:

**PC12.**  audit the performance of MEP sub-contractors and take appropriate action as required

**PC13.**  ensure compliance with the regulatory and organisation's Quality, Health, Safety and Environment (QHSE) guidelines by the MEP sub-contractors

**PC14.**  ensure effective coordination among clients, sub-contractors, department heads, MEP project managers and staff

**PC15.**  verify the MEP contractors bills and co-ordinate with the finance team for their processing

*Carry out documentation*

To be competent, the user/individual on the job must be able to:

**PC16.**  prepare the relevant reports such as project progress report using the relevant software tools after compiling data from various departments in the organisation

**PC17.**  review the resource reports such as manpower histograms along with the machinery schedule

**PC18.**  communicate with all the stakeholders based on the reports and agree on an action plan as required

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.**  the process of obtaining the fire NOC, OC, and any other relevant statutory permissions/licenses from the relevant authorities

**KU2.**  the process of installation of various systems such as plumbing, firefighting system, Sewage Treatment Plant (STP), Waste Treatment Plant (WTP), Heating, Ventilation, and Air-conditioning (HVAC) and lifts

**KU3.**  the process of installation of various equipment such as a substation, HT/ LT Panels, Transformer, DG sets, bus duct, meter board panels, fire alarm system, etc.

**KU4.**  the process of conduiting, electrical wiring, rising main and other internal low side and high side electrical work

**KU5.**  the importance and process of installing LV distribution, lighting and power circuits, telephone/ data system, access control, PA system, CCTV, cable management, earthing and lightning protection as per the shop drawing and client requirements

**KU6.**  the importance of monitoring the execution of MEP work to ensure it is done as per the design and Bill of Quantities (BOQ) specifications and in compliance with the industry standards, local and international building codes, Quality Control (QC) procedures and planned timelines

**KU7.**  the process of commissioning and testing of various MEP systems and equipment

**KU8.**  the process of handing over after the completion of MEP installation and the necessary documentation to be done

**KU9.**  the importance of auditing the performance of MEP sub-contractors

**KU10.**  the importance of ensuring compliance with the regulatory and organisation's Quality, Health, Safety and Environment (QHSE) guidelines

**KU11.**  the importance and process of preparing and reviewing the relevant MEP project-related reports

## Generic Skills (GS)

User/individual on the job needs to know how to:

**GS1.** write work-related notes and maintain records

**GS2.** read the relevant literature to learn about the latest developments in the field of work

**GS3.** listen attentively to understand the information being shared

**GS4.** communicate politely and professionally

**GS5.** plan and schedule tasks for effective time-management

**GS6.** take quick decisions within the limits of authority to deal with workplace emergencies/ accidents

**GS7.** identify possible disruptions to work and take appropriate preventive measures

## Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| *Manage MEP installation, commissioning, testing and handover process* | **8** | **15** | **-** | **10** |
| **PC1.** co-ordinate with the relevant authorities to obtain the fire No Objection Certificate (NOC), Occupancy Certificate (OC) and any other relevant statutory permissions/licenses | - | - | - | - |
| **PC2.** manage the installation of various systems such as plumbing, firefighting system, Sewage Treatment Plant (STP), Waste Treatment Plant (WTP), Heating, Ventilation, and Air-conditioning (HVAC) and lifts | - | - | - | - |
| **PC3.** manage the installation of various equipment such as a substation, High Tension (HT)/ Low Tension (LT) Panels, Transformer, Diesel Generator (DG) sets, bus duct, meter board panels, fire alarm system, etc. | - | - | - | - |
| **PC4.** ensure conduiting, electrical wiring, rising main and other internal low side and high side electrical work is carried out appropriately | - | - | - | - |
| **PC5.** ensure the installation of LV distribution, lighting and power circuits, telephone/ data system, access control, Public Address (PA) system, CCTV, cable management, earthing and lightning protection system is carried out as per the shop drawing and client requirements | - | - | - | - |
| **PC6.** manage the MEP execution, commissioning and testing processes through coordination with the internal teams, sub- contractors and client, such as work order amendments when required | - | - | - | - |
| **PC7.** ensure adherence to the design, Bill of Quantities (BOQ) specifications, industry standards, local and international building codes, Quality Control (QC) procedures, planned timelines and consistency with the company strategy and goals in line with the allotted budget | - | - | - | - |
| **PC8.** implement corrective measures to deal with any deviations and delays in project delivery | - | - | - | - |

**Qualification Pack**

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC9.** compile the necessary documents for handover and check their accuracy | - | - | - | - |
| **PC10.** perform all post-tender activities until the handing over and completion of the defects liability period of the project | - | - | - | - |
| **PC11.** carry out handover to the client following the agreed process | - | - | - | - |
| *Manage the client and sub-contractor relationships* | **10** | **10** | **-** | **10** |
| **PC12.** audit the performance of MEP sub-contractors and take appropriate action as required | - | - | - | - |
| **PC13.** ensure compliance with the regulatory and organisation's Quality, Health, Safety and Environment (QHSE) guidelines by the MEP sub-contractors | - | - | - | - |
| **PC14.** ensure effective coordination among clients, sub-contractors, department heads, MEP project managers and staff | - | - | - | - |
| **PC15.** verify the MEP contractors bills and co-ordinate with the finance team for their processing | - | - | - | - |
| *Carry out documentation* | **12** | **15** | **-** | **10** |
| **PC16.** prepare the relevant reports such as project progress report using the relevant software tools after compiling data from various departments in the organisation | - | - | - | - |
| **PC17.** review the resource reports such as manpower histograms along with the machinery schedule | - | - | - | - |
| **PC18.** communicate with all the stakeholders based on the reports and agree on an action plan as required | - | - | - | - |
| **NOS Total** | **30** | **40** | **-** | **30** |

## National Occupational Standards (NOS) Parameters

| | |
|---|---|
| **NOS Code** | ELE/N7107 |
| **NOS Name** | Manage the MEP project execution, commissioning, testing and handover processes |
| **Sector** | Electronics |
| **Sub-Sector** | Industrial Automation |
| **Occupation** | Engineering-I&A |
| **NSQF Level** | 7 |
| **Credits** | TBD |
| **Version** | 1.0 |
| **Last Reviewed Date** | 24/02/2022 |
| **Next Review Date** | 03/05/2026 |
| **NSQC Clearance Date** | 03/05/2023 |

# ELE/N7108: Carry out internal organisational-level responsibilities

## Description

This OS unit is about carrying out various internal organisation level responsibilities such as managing subordinates, arranging for their training and skill enhancement, etc.

## Scope

The scope covers the following :

- Manage staffing and daily operations
- Arrange for the training of the MEP team and mentor them
- Manage the department finances
- Carry out miscellaneous managerial responsibilities

## Elements and Performance Criteria

### *Manage staffing and daily operations*

To be competent, the user/individual on the job must be able to:

**PC1.**   co-ordinate the development of key performance goals for functions and subordinates

**PC2.**   carry out staffing, ensuring staff with the required skills are deployed at different levels of project delivery

**PC3.**   manage the daily operations of the business unit such as budgeting, production planning, inventory management

**PC4.**   monitor the performance of the key managers and executives

### *Arrange for the training of the MEP team and mentor them*

To be competent, the user/individual on the job must be able to:

**PC5.**   identify knowledge and skills gaps among the various MEP departments in the organisation through internal audits and surveys

**PC6.**   arrange for regular training of the MEP workforce to ensure effective delivery of projects

**PC7.**   lead and mentor a team of mechanical and electrical managers to achieve the best results in line with the agreed goals

### *Manage the department finances*

To be competent, the user/individual on the job must be able to:

**PC8.**   carry out Profit and Loss (P&L) management and devise strategies to grow the business, and present the strategies to the Board of Directors (BOD) for their approval

**PC9.**   review and analyse the expenditure to ensure compliance with the set budget

### *Carry out miscellaneous managerial responsibilities*

To be competent, the user/individual on the job must be able to:

**PC10.**   carry out risk assessment and contingency planning, and communicate the same to internal and external stakeholders

**PC11.**   ensure effective control on the distribution of information among the client, internal departments and sub-contractors

**PC12.** coordinate with various organisational departments to ensure streamlined business processes and develop effective operations plans to achieve the organisational objectives

**PC13.** develop and execute strategies to identify and connect with potential clients

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** the process of developing key performance goals for functions and direct reports

**KU2.** the process of staffing and ensuring staff with the required skills are deployed at different levels of project delivery

**KU3.** the process of identifying knowledge and skills gaps among the various MEP departments in the organisation through internal audits and surveys

**KU4.** the importance of arranging regular training for the MEP workforce and mentoring them

**KU5.** how to carry out budgeting, production planning, and maintain inventory levels

**KU6.** profit and Loss (P&L) management

**KU7.** the process of devising strategies for business growth and seeking the approval of the (BOD)

**KU8.** the importance of analysing the expenditure to ensure compliance with the set budget

**KU9.** the process of carrying out risk assessment and contingency planning

**KU10.** the importance of ensuring control on the distribution of information among the client, internal departments and sub-contractors

**KU11.** how to streamline business processes and develop effective operations plans to achieve the organisational objectives

**KU12.** the process of developing and executing strategies to identify and connect with potential clients

## Generic Skills (GS)

User/individual on the job needs to know how to:

**GS1.** make note of work-related observations and prepare the relevant reports

**GS2.** read the relevant literature to get the latest updates about the field of work

**GS3.** communicate clearly and respectfully

**GS4.** listen attentively to understand the client instructions

**GS5.** take quick decisions to deal with workplace emergencies and accidents

**GS6.** plan and prioritise tasks for effective time-management

**GS7.** identify possible disruptions to work and take appropriate preventive measures

## Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| *Manage staffing and daily operations* | 8 | 10 | - | 10 |
| **PC1.** co-ordinate the development of key performance goals for functions and subordinates | - | - | - | - |
| **PC2.** carry out staffing, ensuring staff with the required skills are deployed at different levels of project delivery | - | - | - | - |
| **PC3.** manage the daily operations of the business unit such as budgeting, production planning, inventory management | - | - | - | - |
| **PC4.** monitor the performance of the key managers and executives | - | - | - | - |
| *Arrange for the training of the MEP team and mentor them* | 4 | 10 | - | 5 |
| **PC5.** identify knowledge and skills gaps among the various MEP departments in the organisation through internal audits and surveys | - | - | - | - |
| **PC6.** arrange for regular training of the MEP workforce to ensure effective delivery of projects | - | - | - | - |
| **PC7.** lead and mentor a team of mechanical and electrical managers to achieve the best results in line with the agreed goals | - | - | - | - |
| *Manage the department finances* | 6 | 10 | - | 5 |
| **PC8.** carry out Profit and Loss (P&L) management and devise strategies to grow the business, and present the strategies to the Board of Directors (BOD) for their approval | - | - | - | - |
| **PC9.** review and analyse the expenditure to ensure compliance with the set budget | - | - | - | - |
| *Carry out miscellaneous managerial responsibilities* | 12 | 10 | - | 10 |
| **PC10.** carry out risk assessment and contingency planning, and communicate the same to internal and external stakeholders | - | - | - | - |

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC11.** ensure effective control on the distribution of information among the client, internal departments and sub-contractors | - | - | - | - |
| **PC12.** coordinate with various organisational departments to ensure streamlined business processes and develop effective operations plans to achieve the organisational objectives | - | - | - | - |
| **PC13.** develop and execute strategies to identify and connect with potential clients | - | - | - | - |
| **NOS Total** | **30** | **40** | **-** | **30** |

## Qualification Pack

### National Occupational Standards (NOS) Parameters

| | |
|---|---|
| **NOS Code** | ELE/N7108 |
| **NOS Name** | Carry out internal organisational-level responsibilities |
| **Sector** | Electronics |
| **Sub-Sector** | Industrial Automation |
| **Occupation** | Engineering-I&A |
| **NSQF Level** | 7 |
| **Credits** | TBD |
| **Version** | 1.0 |
| **Last Reviewed Date** | 24/02/2022 |
| **Next Review Date** | 03/05/2026 |
| **NSQC Clearance Date** | 03/05/2023 |

# ELE/N1002: Apply health and safety practices at the workplace

## Description

This OS unit is about knowledge and practices relating to health, safety and security that candidates need to use in the workplace.

## Scope

The scope covers the following :

- Deal with workplace hazards
- Apply fire safety practices
- Follow emergencies, rescue and first-aid procedures
- Effective waste management/recycling practices

## Elements and Performance Criteria

### Deal with workplace hazards

To be competent, the user/individual on the job must be able to:

**PC1.** identify job-site hazards and possible causes of accident in the workplace

**PC2.** perform work complying to organizational safe working practices and observing hazard signs displayed on containers, equipment and in various work areas such as inside buildings, in open areas and public spaces, etc.

**PC3.** use appropriate personal protective equipment (PPE) for specific tasks and work conditions, contaminant (concentration w.r.t air) requirements and severity of hazard while conforming to the Indian/International standards

**PC4.** follow standard safety procedures while handling tool/ ,equipment, hazardous substances and while working in hazardous environments

**PC5.** dispose electronic waste (such as toxins; metals such as lead, cadmium, barium; flame retardant plastics, welding slag etc.) as per industry approved techniques

**PC6.** avoid damage of components due to negligence in electrostatic discharge (ESD) procedures

**PC7.** locate general health and safety equipment in the workplace such as fire extinguishers; first aid equipment; safety instruments, clothing and installations (fire exits, exhaust fans)

**PC8.** maintain appropriate posture while handling heavy objects

**PC9.** apply good housekeeping practices at all times

### Apply fire safety practices

To be competent, the user/individual on the job must be able to:

**PC10.** take preventive measures to prevent fire hazards

**PC11.** • use appropriate fire extinguishers for different types of fires
• Types of fires: Class A: e.g. ordinary solid combustibles, such as wood, paper, cloth, plastic, charcoal, etc.; Class B: flammable liquids and gases, such as gasoline, propane, diesel fuel, tar, cooking oil, and similar substances; Class C: e.g. electrical equipment such as appliances, wiring, breaker panels, etc. (These categories of fires become Class A, B, and D fires when the electrical equipment that initiated the fire is no l

**PC12.** exhibit rescue and first-aid techniques in case of fire or electrocution

*Follow emergencies, rescue and first-aid procedures*

To be competent, the user/individual on the job must be able to:

**PC13.** administer appropriate first aid to victims in case of bleeding, burns, choking, electric shock, poisoning etc.

**PC14.** administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock,

**PC15.** participate regularly in emergency procedures such as raising alarm, safe/efficient, evacuation, correct means of taking shelter and escaping, correct assembly point, roll call, correct return to work

**PC16.** use correct method to move injured people and others during an emergency

*Effective waste management/recycling practices*

To be competent, the user/individual on the job must be able to:

**PC17.** identify recyclable and non-recyclable, and hazardous waste generated

**PC18.** segregate waste into different categories

**PC19.** ensure disposal of non-recyclable waste appropriately

**PC20.** deposit non-recyclable and reusable material at identified location

**PC21.** follow processes specified for disposal of hazardous waste

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** importance of working in clean and safe work environment following safety practices and procedures

**KU2.** health and safety roles and responsibilities of relevant personnel within and outside the organisation

**KU3.** key internal and external sources of health and safety information

**KU4.** basic knowledge of electronic devices and related health risks

**KU5.** meaning of hazards and risks

**KU6.** various types of health and safety hazards commonly present in the work environment such as physical hazards, electrical hazards, chemical hazards, fire hazards, equipment related hazards, health hazards, etc.

**KU7.** methods of accident prevention

**KU8.** importance of using protective clothing/equipment while working

**KU9.** general principles for identifying and controlling health and safety risks

**KU10.** main hazards and preventive as well as control measures while working with different types of equipment

**KU11.** importance of carrying out electrical and non-electrical isolation to prevent hazards from loss of machine/system/process control

**KU12.** main hazards and preventive as well as control measures when working with electrical systems or using electrical equipment

**KU13.** forms and classifications of hazardous substances

**KU14.** safe working practices while working at various hazardous sites

**KU15.** prevention and control measures to reduce risks from exposure to hazardous substances

**KU16.** health effects associated with exposure to noise and vibration and the appropriate control measures

**KU17.** precautionary activities to prevent the fire accident

**KU18.** various causes of fire such as heating of metal, spontaneous ignition, sparking, electrical eating, loose fires (smoking, welding, etc.) chemical fires etc.

**KU19.** techniques of using the different fire extinguishers

**KU20.** different methods and material to extinguish fires

**KU21.** different materials used for extinguishing fire such as sand, water, foam, $CO_2$, dry powder

**KU22.** rescue techniques used during a fire hazard

**KU23.** various types of safety signs and their meaning

**KU24.** basic first aid treatment relevant to the common work place injuries e.g. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries

**KU25.** contents of written accident report

**KU26.** potential injuries and ill health associated with incorrect handing of tools and equipment

**KU27.** safe lifting and carrying practices

**KU28.** potential impact to a person who is moved incorrectly

**KU29.** personal safety, health and dignity issues relating to the movement of a person by others

**KU30.** ESD measures and 5S

**KU31.** efficient utilization and management of material and water

**KU32.** ways to recognize common electrical problems and practices of conserving electricity

**KU33.** usage of different colours of dustbins, categorization of waste into dry, wet, recyclable, nonrecyclable and items of single-use plastics

**KU34.** organization's procedure for minimizing waste

**KU35.** waste management and methods of waste disposal

**KU36.** common sources of pollution and ways to minimize it

**KU37.** names, contact information and location of people responsible for health and safety in the workplace

**KU38.** location of documents and equipment for health and safety compliance/practices in the workplace

**KU39.** safety notices, signs and instructions at workplace

## Generic Skills (GS)

User/individual on the job needs to know how to:

**GS1.** interpret general health and safety guidelines labels, charts, signages

**GS2.** read operation manuals

**GS3.** write health and safety compliance report

**GS4.** write an accident/incident report in local language or English

**GS5.** provide an emergency or safety incident brief to seniors or relevant authorities in a calm, clear and to-the-point manner

**GS6.** communicate general health and safety guidelines to colleagues/co-workers

**GS7.** communicate appropriately with co-workers in order to clarify instructions and other issues

**GS8.** act in case of any potential hazards observed in the work place

**GS9.** plan and organize their own work schedule, work area, tools, equipment in compliance with organizational policies for health, safety and security

**GS10.** take adequate measures to ensure the safety of clients and visitors at the workplace

**GS11.** identify immediate or temporary solutions to resolve delays

**GS12.** evaluate the work area for health and safety risks or hazards

**GS13.** use cause and effect relations to anticipate potential issues, problems and their solution in the work area related to safety

**GS14.** recognise emergency and potential emergency situations

**GS15.** protect self and others from a health and safety risk or hazard

**GS16.** communicate and collaborate to incorporate sustainable practices (greening) in workplace processes

**GS17.** record data on waste disposal at workplace

## Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| *Deal with workplace hazards* | **20** | **31** | **-** | **-** |
| **PC1.** identify job-site hazards and possible causes of accident in the workplace | 2 | 3 | - | - |
| **PC2.** perform work complying to organizational safe working practices and observing hazard signs displayed on containers, equipment and in various work areas such as inside buildings, in open areas and public spaces, etc. | 3 | 4 | - | - |
| **PC3.** use appropriate personal protective equipment (PPE) for specific tasks and work conditions, contaminant (concentration w.r.t air) requirements and severity of hazard while conforming to the Indian/International standards | 3 | 4 | - | - |
| **PC4.** follow standard safety procedures while handling tool/ ,equipment, hazardous substances and while working in hazardous environments | 3 | 4 | - | - |
| **PC5.** dispose electronic waste (such as toxins; metals such as lead, cadmium, barium; flame retardant plastics, welding slag etc.) as per industry approved techniques | 2 | 4 | - | - |
| **PC6.** avoid damage of components due to negligence in electrostatic discharge (ESD) procedures | 2 | 3 | - | - |
| **PC7.** locate general health and safety equipment in the workplace such as fire extinguishers; first aid equipment; safety instruments, clothing and installations (fire exits, exhaust fans) | 2 | 3 | - | - |
| **PC8.** maintain appropriate posture while handling heavy objects | 1 | 3 | - | - |
| **PC9.** apply good housekeeping practices at all times | 2 | 3 | - | - |
| *Apply fire safety practices* | **4** | **9** | **-** | **-** |
| **PC10.** take preventive measures to prevent fire hazards | 2 | 3 | - | - |

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC11.**<br>• use appropriate fire extinguishers for different types of fires<br>• Types of fires: Class A: e.g. ordinary solid combustibles, such as wood, paper, cloth, plastic, charcoal, etc.; Class B: flammable liquids and gases, such as gasoline, propane, diesel fuel, tar, cooking oil, and similar substances; Class C: e.g. electrical equipment such as appliances, wiring, breaker panels, etc. (These categories of fires become Class A, B, and D fires when the electrical equipment that initiated the fire is no l | 1 | 3 | - | - |
| **PC12.** exhibit rescue and first-aid techniques in case of fire or electrocution | 1 | 3 | - | - |
| *Follow emergencies, rescue and first-aid procedures* | **6** | **13** | **-** | **-** |
| **PC13.** administer appropriate first aid to victims in case of bleeding, burns, choking, electric shock, poisoning etc. | 1 | 3 | - | - |
| **PC14.** administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, | 1 | 2 | - | - |
| **PC15.** participate regularly in emergency procedures such as raising alarm, safe/efficient, evacuation, correct means of taking shelter and escaping, correct assembly point, roll call, correct return to work | 2 | 4 | - | - |
| **PC16.** use correct method to move injured people and others during an emergency | 2 | 4 | - | - |
| *Effective waste management/recycling practices* | **5** | **12** | **-** | **-** |
| **PC17.** identify recyclable and non-recyclable, and hazardous waste generated | 1 | 3 | - | - |
| **PC18.** segregate waste into different categories | 1 | 2 | - | - |
| **PC19.** ensure disposal of non-recyclable waste appropriately | 1 | 2 | - | - |
| **PC20.** deposit non-recyclable and reusable material at identified location | 1 | 3 | - | - |

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC21.** follow processes specified for disposal of hazardous waste | 1 | 2 | - | - |
| **NOS Total** | **35** | **65** | **-** | **-** |

**Qualification Pack**

## National Occupational Standards (NOS) Parameters

| | |
|---|---|
| **NOS Code** | ELE/N1002 |
| **NOS Name** | Apply health and safety practices at the workplace |
| **Sector** | Electronics |
| **Sub-Sector** | Generic |
| **Occupation** | Generic - Health Safety |
| **NSQF Level** | 4 |
| **Credits** | TBD |
| **Version** | 3.0 |
| **Last Reviewed Date** | 24/02/2022 |
| **Next Review Date** | 03/05/2026 |
| **NSQC Clearance Date** | 03/05/2023 |

## DGT/VSQ/N0103: Employability Skills (90 Hours)

### Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

### Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

### Elements and Performance Criteria

*Introduction to Employability Skills*

To be competent, the user/individual on the job must be able to:

**PC1.** understand the significance of employability skills in meeting the current job market requirement and future of work

**PC2.** identify and explore learning and employability relevant portals

**PC3.** research about the different industries, job market trends, latest skills required and the available opportunities

*Constitutional values – Citizenship*

To be competent, the user/individual on the job must be able to:

**PC4.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.

**PC5.** follow environmentally sustainable practices

*Becoming a Professional in the 21st Century*

To be competent, the user/individual on the job must be able to:

**PC6.** recognize the significance of 21st Century Skills for employment

**PC7.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

**PC8.** adopt a continuous learning mindset for personal and professional development

*Basic English Skills*

To be competent, the user/individual on the job must be able to:

**PC9.** use basic English for everyday conversation in different contexts, in person and over the telephone

**PC10.** read and understand routine information, notes, instructions, mails, letters etc. written in English

**PC11.** write short messages, notes, letters, e-mails etc. in English

*Career Development & Goal Setting*

To be competent, the user/individual on the job must be able to:

**PC12.** identify career goals based on the skills, interests, knowledge, and personal attributes

**PC13.** prepare a career development plan with short- and long-term goals

*Communication Skills*

To be competent, the user/individual on the job must be able to:

**PC14.** follow verbal and non-verbal communication etiquette while communicating in professional and public settings

**PC15.** use active listening techniques for effective communication

**PC16.** communicate in writing using appropriate style and format based on formal or informal requirements

**PC17.** work collaboratively with others in a team

*Diversity & Inclusion*

To be competent, the user/individual on the job must be able to:

**PC18.** communicate and behave appropriately with all genders and PwD

**PC19.** escalate any issues related to sexual harassment at workplace according to POSH Act

*Financial and Legal Literacy*

To be competent, the user/individual on the job must be able to:

**PC20.** identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.

**PC21.** carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook

**PC22.** identify common components of salary and compute income, expenses, taxes, investments etc

**PC23.** identify relevant rights and laws and use legal aids to fight against legal exploitation

*Essential Digital Skills*

To be competent, the user/individual on the job must be able to:

**PC24.** operate digital devices and use their features and applications securely and safely

**PC25.** carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.

**PC26.** display responsible online behaviour while using various social media platforms

**PC27.** create a personal email account, send and process received messages as per requirement

**PC28.** carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications

**PC29.** utilize virtual collaboration tools to work effectively

*Entrepreneurship*

To be competent, the user/individual on the job must be able to:

**PC30.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research

**PC31.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion

**PC32.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

*Customer Service*

To be competent, the user/individual on the job must be able to:

**PC33.** identify different types of customers and ways to communicate with them

**PC34.** identify and respond to customer requests and needs in a professional manner

**PC35.** use appropriate tools to collect customer feedback

**PC36.** follow appropriate hygiene and grooming standards

*Getting ready for apprenticeship & Jobs*

To be competent, the user/individual on the job must be able to:

**PC37.** create a professional Curriculum vitae (Résumé)

**PC38.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

**PC39.** apply to identified job openings using offline /online methods as per requirement

**PC40.** answer questions politely, with clarity and confidence, during recruitment and selection

**PC41.** identify apprenticeship opportunities and register for it as per guidelines and requirements

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** need for employability skills and different learning and employability related portals

**KU2.** various constitutional and personal values

**KU3.** different environmentally sustainable practices and their importance

**KU4.** Twenty first (21st) century skills and their importance

**KU5.** how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

**KU6.** importance of career development and setting long- and short-term goals

**KU7.** about effective communication

**KU8.** POSH Act

**KU9.** Gender sensitivity and inclusivity

**KU10.** different types of financial institutes, products, and services

**KU11.** components of salary and how to compute income and expenditure

**KU12.** importance of maintaining safety and security in offline and online financial transactions

**KU13.** different legal rights and laws

**KU14.** different types of digital devices and the procedure to operate them safely and securely

**KU15.** how to create and operate an e- mail account

**KU16.** use applications such as word processors, spreadsheets etc.

**KU17.** how to identify business opportunities

**KU18.** types and needs of customers

**KU19.** how to apply for a job and prepare for an interview

**KU20.** apprenticeship scheme and the process of registering on apprenticeship portal

## Generic Skills (GS)

User/individual on the job needs to know how to:

**GS1.** read and write different types of documents/instructions/correspondence in English and other languages

**GS2.** communicate effectively using appropriate language in formal and informal settings

**GS3.** behave politely and appropriately with all to maintain effective work relationship

**GS4.** how to work in a virtual mode, using various technological platforms

**GS5.** perform calculations efficiently

**GS6.** solve problems effectively

**GS7.** pay attention to details

**GS8.** manage time efficiently

**GS9.** maintain hygiene and sanitization to avoid infection

**Qualification Pack**

## Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| *Introduction to Employability Skills* | 1 | 1 | - | - |
| **PC1.** understand the significance of employability skills in meeting the current job market requirement and future of work | - | - | - | - |
| **PC2.** identify and explore learning and employability relevant portals | - | - | - | - |
| **PC3.** research about the different industries, job market trends, latest skills required and the available opportunities | - | - | - | - |
| *Constitutional values – Citizenship* | 1 | 1 | - | - |
| **PC4.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc. | - | - | - | - |
| **PC5.** follow environmentally sustainable practices | - | - | - | - |
| *Becoming a Professional in the 21st Century* | 1 | 3 | - | - |
| **PC6.** recognize the significance of 21st Century Skills for employment | - | - | - | - |
| **PC7.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life | - | - | - | - |
| **PC8.** adopt a continuous learning mindset for personal and professional development | - | - | - | - |
| *Basic English Skills* | 3 | 4 | - | - |
| **PC9.** use basic English for everyday conversation in different contexts, in person and over the telephone | - | - | - | - |

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC10.** read and understand routine information, notes, instructions, mails, letters etc. written in English | - | - | - | - |
| **PC11.** write short messages, notes, letters, e-mails etc. in English | - | - | - | - |
| *Career Development & Goal Setting* | **1** | **2** | **-** | **-** |
| **PC12.** identify career goals based on the skills, interests, knowledge, and personal attributes | - | - | - | - |
| **PC13.** prepare a career development plan with short- and long-term goals | - | - | - | - |
| *Communication Skills* | **2** | **2** | **-** | **-** |
| **PC14.** follow verbal and non-verbal communication etiquette while communicating in professional and public settings | - | - | - | - |
| **PC15.** use active listening techniques for effective communication | - | - | - | - |
| **PC16.** communicate in writing using appropriate style and format based on formal or informal requirements | - | - | - | - |
| **PC17.** work collaboratively with others in a team | - | - | - | - |
| *Diversity & Inclusion* | **1** | **1** | **-** | **-** |
| **PC18.** communicate and behave appropriately with all genders and PwD | - | - | - | - |
| **PC19.** escalate any issues related to sexual harassment at workplace according to POSH Act | - | - | - | - |
| *Financial and Legal Literacy* | **2** | **3** | **-** | **-** |
| **PC20.** identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc. | - | - | - | - |
| **PC21.** carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook | - | - | - | - |

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC22.** identify common components of salary and compute income, expenses, taxes, investments etc | - | - | - | - |
| **PC23.** identify relevant rights and laws and use legal aids to fight against legal exploitation | - | - | - | - |
| *Essential Digital Skills* | **3** | **5** | **-** | **-** |
| **PC24.** operate digital devices and use their features and applications securely and safely | - | - | - | - |
| **PC25.** carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc. | - | - | - | - |
| **PC26.** display responsible online behaviour while using various social media platforms | - | - | - | - |
| **PC27.** create a personal email account, send and process received messages as per requirement | - | - | - | - |
| **PC28.** carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications | - | - | - | - |
| **PC29.** utilize virtual collaboration tools to work effectively | - | - | - | - |
| *Entrepreneurship* | **2** | **3** | **-** | **-** |
| **PC30.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research | - | - | - | - |
| **PC31.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion | - | - | - | - |
| **PC32.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity | - | - | - | - |
| *Customer Service* | **1** | **2** | **-** | **-** |
| **PC33.** identify different types of customers and ways to communicate with them | - | - | - | - |

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|---|---|---|---|
| **PC34.** identify and respond to customer requests and needs in a professional manner | - | - | - | - |
| **PC35.** use appropriate tools to collect customer feedback | - | - | - | - |
| **PC36.** follow appropriate hygiene and grooming standards | - | - | - | - |
| *Getting ready for apprenticeship & Jobs* | **2** | **3** | **-** | **-** |
| **PC37.** create a professional Curriculum vitae (Résumé) | - | - | - | - |
| **PC38.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively | - | - | - | - |
| **PC39.** apply to identified job openings using offline /online methods as per requirement | - | - | - | - |
| **PC40.** answer questions politely, with clarity and confidence, during recruitment and selection | - | - | - | - |
| **PC41.** identify apprenticeship opportunities and register for it as per guidelines and requirements | - | - | - | - |
| **NOS Total** | **20** | **30** | **-** | **-** |

## National Occupational Standards (NOS) Parameters

| | |
|---|---|
| **NOS Code** | DGT/VSQ/N0103 |
| **NOS Name** | Employability Skills (90 Hours) |
| **Sector** | Cross Sectoral |
| **Sub-Sector** | Professional Skills |
| **Occupation** | Employability |
| **NSQF Level** | 5 |
| **Credits** | 3 |
| **Version** | 1.0 |
| **Last Reviewed Date** | NA |
| **Next Review Date** | 29/03/2026 |
| **NSQC Clearance Date** | 29/03/2023 |

## Assessment Guidelines and Assessment Weightage

### Assessment Guidelines

Minimum 70% marks are required

**Minimum Aggregate Passing % at QP Level : 70**

(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

### Assessment Weightage

Compulsory NOS

| National Occupational Standards | Theory Marks | Practical Marks | Project Marks | Viva Marks | Total Marks | Weightage |
|---|---|---|---|---|---|---|
| ELE/N7106.Manage the tendering, sub-contracting and planning processes for MEP projects | 30 | 40 | - | 30 | 100 | 25 |
| ELE/N7107.Manage the MEP project execution, commissioning, testing and handover processes | 30 | 40 | - | 30 | 100 | 25 |
| ELE/N7108.Carry out internal organisational-level responsibilities | 30 | 40 | - | 30 | 100 | 30 |
| ELE/N1002.Apply health and safety practices at the workplace | 35 | 65 | - | - | 100 | 10 |
| DGT/VSQ/N0103.Employability Skills (90 Hours) | 20 | 30 | - | - | 50 | 10 |
| **Total** | **145** | **215** | **-** | **90** | **450** | **100** |

**Acronyms**

| NOS | National Occupational Standard(s) |
|-----|-----------------------------------|
| NSQF | National Skills Qualifications Framework |
| QP | Qualifications Pack |
| TVET | Technical and Vocational Education and Training |

**Glossary**

| | |
|---|---|
| **Sector** | Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests. |
| **Sub-sector** | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components. |
| **Occupation** | Occupation is a set of job roles, which perform similar/ related set of functions in an industry. |
| **Job role** | Job role defines a unique set of functions that together form a unique employment opportunity in an organisation. |
| **Occupational Standards (OS)** | OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts. |
| **Performance Criteria (PC)** | Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task. |
| **National Occupational Standards (NOS)** | NOS are occupational standards which apply uniquely in the Indian context. |
| **Qualifications Pack (QP)** | QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code. |
| **Unit Code** | Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N' |
| **Unit Title** | Unit title gives a clear overall statement about what the incumbent should be able to do. |
| **Description** | Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for. |
| **Scope** | Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required. |

| | |
|---|---|
| **Knowledge and Understanding (KU)** | Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard. |
| **Organisational Context** | Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility. |
| **Technical Knowledge** | Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities. |
| **Core Skills/ Generic Skills (GS)** | Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles. |
| **Electives** | Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives. |
| **Options** | Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options. |