

Qualification Pack



Assistant Technician - Smart Meter

QP Code: ELE/Q5905

Version: 1.0

NSQF Level: 3

Electronics Sector Skills Council of India || 155, 2nd Floor, ESC House Okhla Industrial Area-Phase 3
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Qualification Pack

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ELE/Q5905: Assistant Technician - Smart Meter

Brief Job Description

The incumbent at work is responsible for installation, replacement and testing of smart energy, water and gas meters at consumer's place by following organizational procedures and standards.

Personal Attributes

The individual must have strength to lift heavy parts and modules, ability to work in high-decibel noise environment and in a standing position for long hours.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ELE/N5908: Installation & troubleshoot of Smart Energy Meter](#)
2. [ELE/N5909: Installation & troubleshoot of Smart Water Meter](#)
3. [ELE/N5910: Installation & troubleshoot of Smart Gas Meter](#)
4. [ELE/N1002: Apply health and safety practices at the workplace](#)
5. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

| | |
|--------------------------------------|------------------------------------|
| Sector | Electronics |
| Sub-Sector | Consumer Electronics & IT Hardware |
| Occupation | Installation-S&L |
| Country | India |
| NSQF Level | 3 |
| Credits | 14 |
| Aligned to NCO/ISCO/ISIC Code | NCO-2015/9623.0300 |



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| | |
|---|--|
| Minimum Educational Qualification & Experience | 10th grade pass OR 8th grade pass with 2 years of NTC OR 8th grade pass with 2 Years of experience relevant experience |
| Minimum Level of Education for Training in School | 8th Class |
| Pre-Requisite License or Training | NA |
| Minimum Job Entry Age | 18 Years |
| Last Reviewed On | NA |
| Next Review Date | 29/03/2026 |
| NSQC Approval Date | 29/03/2023 |
| Version | 1.0 |
| Reference code on NQR | QG-03-EH-00384-2023-V1-ESSC |
| NQR Version | 1.0 |

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ELE/N5908: Installation & troubleshoot of Smart Energy Meter

Description

This unit is about installing, removing or changing and testing smart meters and meter supportive equipment that are used to record energy consumption in residential, commercial or industrial units.

Scope

The scope covers the following :

- Preparing for energy meter installation or replacement work
- Installing a single or three phase meter appropriately
- Recording meter details and readings

Elements and Performance Criteria

Preparing for energy meter installation or replacement work

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

- PC1.** obtain the information and details of the consumer for installation work
- PC2.** collect the necessary tools and equipment required for installation of smart energy meter
- PC3.** check the functionality of tools and equipment before use
- PC4.** check that the distance between the poles or cables is correct and underground and/or overhead cables are laid correctly
- PC5.** identify the reason such as stoppage of meter, erratic consumption output, broken seal, burning or damage of meter, service disconnection for changing the energy meter in case of replacement of meter
- PC6.** locate the area inside or outside the customer's premise and check that the identified area is accessible to carry out installation, meter testing, commissioning, reading, recording and maintenance after assessing possible risks
- PC7.** inspect the facility's wiring system and recognize any possible risks such as faulty circuit, loose ends, naked wires, etc.
- PC8.** check the consumer's wiring system for any common phase or looping of phase of two or more consumers in case of new meter installation or identify the meter type, required tools and devices required during removal of meter in case of meter replacement
- PC9.** 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

Installing or replacing a single or three phase meter

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

- PC10.** install or replace the energy meter and required supportive equipment such as meter box, junction box, distribution bus bar, etc. using appropriate insulated tools and devices as per organizational procedures
- PC11.** ensure the energy meter is correct, examined and tested, and meets all the parameters and specifications set by the Bureau of Indian Standards (BIS)

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- PC12.** equip the energy meter with various anti-tampering features as per regulations and organizational procedures
- PC13.** ensure that the energy meter is protected from various types of external factors such as magnetic induction, vibration, electrostatic discharge, switching transients, surge voltages, oblique suspension and harmonics in accordance with relevant regulations
- PC14.** check the energy meter for earth leakage indication as per Central Electricity Authority Regulations, 2006
- PC15.** test and calibrate the energy meter using appropriate testing devices in line with organizational quality standards and regulations
- PC16.** check that replaced meter is working properly and customer's problems are duly resolved efficiently
- PC17.** ensure that energy meter display is working properly and showing the power usage details properly
- PC18.** escalate unresolved problems to appropriate authority for rectifications

Recording meter details and readings

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

- PC19.** record the meter data and maintain all the information related to the consumer's energy meter
- PC20.** verify the accuracy of the meter data
- PC21.** maintain consumer meters' account history, installation date and testing details, calibration and replacement of meters in line with organizational standards and policies
- PC22.** fill the installation or service report and take acknowledgment from the customer
- PC23.** document the work completed for future records

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** health and safety requirements applicable in the workplace
- KU2.** various types of health and safety hazards commonly present in the work environment such as physical hazards, electrical hazards, fire hazards, equipment related hazards, health hazards, etc.
- KU3.** methods of accident prevention
- KU4.** importance of using protective clothing/equipment while working
- KU5.** application of basic principles of electricity in energy meters
- KU6.** electrical units used to measure energy outputs, for example KVA, KWH, etc.
- KU7.** relevant terms, signs, symbols and other graphical representations and their respective interpretations
- KU8.** installation, operation and maintenance procedures of energy meter
- KU9.** how to obtain job specifications or work order from responsible authority
- KU10.** how to plan the work correctly using various safety control measures i.e. signs and barriers, demarcation of work area, control and removal of hazards and contamination protection
- KU11.** Safe Operating Procedure of using tools and equipment required during tasks

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- KU12.** • various types of consumer energy meters and their uses
• Types of meters: single phase meter and three phase meter, CT meter and HT meters, AMR or AMI meters
- KU13.** different components of a smart energy meter and their functions
- KU14.** difference between LV and HT meters and their respective uses in the power sector
- KU15.** • required meter specifications and selection parameters as per Indian Standards
• Energy meter selection parameters: specification of meters, immunity to external factors, sealing points and functional requirements, etc.
• Energy meter specification: Standard Reference Voltage, Voltage Range, Standard Frequency, Standard Basic Current, Accuracy Class, Starting Current and Maximum Current, Power Factor Range, Power Frequency Withstand Voltage, Impulse Voltage Withstand Test for 1.2/50 micro sec,
- KU16.** • compliance with energy meter standards set by apex regulators
• Regulators: Bureau of Indian Standards (BIS), British Standards (BS), International Electro-technical Commission (IEC) Standards, etc.
- KU17.** how to select suitable location for installing an energy meter
- KU18.** • importance of checking manufacturer's sealing points prior to installation
• Sealing points: meter body or cover, meter terminal cover, meter test terminal block, meter cabinet
- KU19.** standard features of a correct energy meter as defined by regulating body e.g. specification of meters, immunity to external factors, sealing points and functional requirements
- KU20.** how to place various anti-tampering features in an energy meter
- KU21.** energy meters testing procedures
- KU22.** how to recognize and report inaccurate work instructions and documentation to designated personnel
- KU23.** how to record metered data, maintain information database and verify accuracy of compiled data

Generic Skills (GS)

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

- GS1.** record the information related to work and processes
- GS2.** write reports and observations related to work in English/regional language
- GS3.** read and interpret and process flowchart for all operations
- GS4.** read manuals and operation documents to understand the Equipment used into operation
- GS5.** discuss task lists, schedules and activities with the seniors and team members
- GS6.** follow organization rule-based decision-making process
- GS7.** take decisions with systematic course of actions and/or response
- GS8.** plan and organize tasks to meet deadlines
- GS9.** find ways of modifying difficult operating stages to make it operation friendly
- GS10.** apply domain information to set and define operation parameters that ensures economy and quality of the product
- GS11.** analyze the complexity of work to determine if it can be successfully carried out or needs to be referred to a superior/specialist



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GS12. recognize a workplace problem and take suitable action to resolve it

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Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Preparing for energy meter installation or replacement work</i> | 17 | 20 | - | - |
| PC1. obtain the information and details of the consumer for installation work | 1 | 1 | - | - |
| PC2. collect the necessary tools and equipment required for installation of smart energy meter | 3 | 2 | - | - |
| PC3. check the functionality of tools and equipment before use | 1 | 2 | - | - |
| PC4. check that the distance between the poles or cables is correct and underground and/or overhead cables are laid correctly | 2 | 3 | - | - |
| PC5. identify the reason such as stoppage of meter, erratic consumption output, broken seal, burning or damage of meter, service disconnection for changing the energy meter in case of replacement of meter | 3 | 2 | - | - |
| PC6. locate the area inside or outside the customer's premise and check that the identified area is accessible to carry out installation, meter testing, commissioning, reading, recording and maintenance after assessing possible risks | 2 | 3 | - | - |
| PC7. inspect the facility's wiring system and recognize any possible risks such as faulty circuit, loose ends, naked wires, etc. | 2 | 3 | - | - |
| PC8. check the consumer's wiring system for any common phase or looping of phase of two or more consumers in case of new meter installation or identify the meter type, required tools and devices required during removal of meter in case of meter replacement | 2 | 3 | - | - |
| PC9. 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 | 1 | 1 | - | - |

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| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Installing or replacing a single or three phase meter</i> | 17 | 26 | - | - |
| PC10. install or replace the energy meter and required supportive equipment such as meter box, junction box, distribution bus bar, etc. using appropriate insulated tools and devices as per organizational procedures | 4 | 8 | - | - |
| PC11. ensure the energy meter is correct, examined and tested, and meets all the parameters and specifications set by the Bureau of Indian Standards (BIS) | 2 | -1 | - | - |
| PC12. equip the energy meter with various anti-tampering features as per regulations and organizational procedures | 2 | 4 | - | - |
| PC13. ensure that the energy meter is protected from various types of external factors such as magnetic induction, vibration, electrostatic discharge, switching transients, surge voltages, oblique suspension and harmonics in accordance with relevant regulations | 2 | 4 | - | - |
| PC14. check the energy meter for earth leakage indication as per Central Electricity Authority Regulations, 2006 | 1 | 1 | - | - |
| PC15. test and calibrate the energy meter using appropriate testing devices in line with organizational quality standards and regulations | 3 | 5 | - | - |
| PC16. check that replaced meter is working properly and customer's problems are duly resolved efficiently | 1 | 2 | - | - |
| PC17. ensure that energy meter display is working properly and showing the power usage details properly | 1 | 1 | - | - |
| PC18. escalate unresolved problems to appropriate authority for rectifications | 1 | 2 | - | - |
| <i>Recording meter details and readings</i> | 6 | 10 | - | - |
| PC19. record the meter data and maintain all the information related to the consumer's energy meter | 2 | 3 | - | - |



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| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| PC20. verify the accuracy of the meter data | 1 | 2 | - | - |
| PC21. maintain consumer meters' account history, installation date and testing details, calibration and replacement of meters in line with organizational standards and policies | 1 | 2 | - | - |
| PC22. fill the installation or service report and take acknowledgment from the customer | 1 | 2 | - | - |
| PC23. document the work completed for future records | 1 | 1 | - | - |
| NOS Total | 40 | 56 | - | - |



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National Occupational Standards (NOS) Parameters

| | |
|----------------------------|---|
| NOS Code | ELE/N5908 |
| NOS Name | Installation & troubleshoot of Smart Energy Meter |
| Sector | Electronics |
| Sub-Sector | Consumer Electronics & IT Hardware |
| Occupation | Installation-S&L |
| NSQF Level | 3 |
| Credits | 4 |
| Version | 1.0 |
| Last Reviewed Date | NA |
| Next Review Date | 29/03/2026 |
| NSQC Clearance Date | 29/03/2023 |

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ELE/N5909: Installation & troubleshoot of Smart Water Meter

Description

This unit is about installing, removing or changing and testing smart meters and meter supportive equipment that are used to record water consumption in residential, commercial or industrial units.

Scope

The scope covers the following :

- Preparing for meter installation or replacement work
- Installing a smart water meter appropriately
- Recording meter details and readings

Elements and Performance Criteria

Preparing for water meter installation or replacement work

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

- PC1.** obtain the information and details of the consumer for installation work
- PC2.** collect the necessary tools and equipment required for installation of smart water meter
- PC3.** check the functionality of tools and equipment before use
- PC4.** check that the main water line is laid correctly and there is enough place available between main water line and water supply line
- PC5.** identify the reason such as stoppage of meter, erratic consumption output, broken seal, damage of meter, service disconnection for changing the water meter in case of replacement of meter
- PC6.** locate the area inside the customer's premise near to main water line and check that the identified area is accessible to carry out installation, meter testing, commissioning, reading, recording and maintenance after assessing possible risks
- PC7.** 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

Installing or replacing a water meter

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

- PC8.** connect the extra pipes with the water lines properly, if required
- PC9.** install or replace the duly tested water meter and required supportive equipment using appropriate tools and devices as per organizational procedures
- PC10.** ensure that water meter is correct, examined and tested, and meets all the specifications set by the Bureau of Indian Standards (BIS)
- PC11.** ensure that the water connections are tighten properly and meter is covered with protection lid after installation
- PC12.** equip the water meter with various anti-tampering features as per regulations and organizational procedures
- PC13.** conduct the leakage test to ensure there is no water leaks in the pipe connections

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- PC14.** test and calibrate the water meter using appropriate testing devices in line with organizational quality standards and regulations
- PC15.** check that replaced meter is working properly and customer's problems are duly resolved efficiently
- PC16.** ensure that water meter display is working properly and showing the water usage readings properly
- PC17.** escalate unresolved problems to appropriate authority for rectifications

Recording meter details and readings

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

- PC18.** record the meter data and maintain all the information related to the consumer's water meter
- PC19.** verify the accuracy of the meter data
- PC20.** maintain consumer meters' account history, installation date and testing details, calibration and replacement of meters in line with organizational standards and policies
- PC21.** fill the installation or service report and take acknowledgment from the customer
- PC22.** document the work completed for future records

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant legislation, standards, policies, and procedures followed in the organization
- KU2.** importance of using personal protective equipment (PPE) against possible hazards as described in the organizational health and safety guidelines and relevant regulations
- KU3.** basic principles of water meters working
- KU4.** relevant terms, signs, symbols and other graphical representations and their respective interpretations
- KU5.** installation, operation and maintenance procedures of water meter
- KU6.** how to obtain job specifications or work order from responsible authority
- KU7.** how to plan the work correctly using various safety control measures i.e. signs and barriers, demarcation of work area, control and removal of hazards and contamination protection
- KU8.** Safe Operating Procedure of using tools and equipment required during tasks
- KU9.**
 - various types of water meters and their uses
 - Types of water meters: Positive Displacement Meters (PD Meters), Velocity Flow Meters, Electromagnetic Water Meters and Ultrasonic Water Meters
- KU10.** different components of a smart water meter and their functions
- KU11.** required meter specifications and selection parameters as per Indian Standards
- KU12.** compliance with water meter standards set by Bureau of Indian Standards (BIS)
- KU13.** how to select suitable location for installing a water meter
- KU14.** standard features of a correct water meter as defined by regulating body e.g. specification of meters, immunity to external factors, sealing points and functional requirements
- KU15.** how to place various anti-tampering features in water meter
- KU16.** smart water meters testing procedures



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- KU17.** how to recognize and report inaccurate work instructions and documentation to designated personnel
- KU18.** how to record metered data, maintain information database and verify accuracy of compiled data

Generic Skills (GS)

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

- GS1.** record the information related to work and processes
- GS2.** write reports and observations related to work in English/regional language
- GS3.** read and interpret and process flowchart for all operations
- GS4.** read manuals and operation documents to understand the Equipment used into operation
- GS5.** discuss task lists, schedules and activities with the seniors and team members
- GS6.** follow organization rule-based decision-making process
- GS7.** take decisions with systematic course of actions and/or response
- GS8.** plan and organize tasks to meet deadlines
- GS9.** find ways of modifying difficult operating stages to make it operation friendly
- GS10.** apply domain information to set and define operation parameters that ensures economy and quality of the product
- GS11.** analyze the complexity of work to determine if it can be successfully carried out or needs to be referred to a superior/specialist
- GS12.** recognize a workplace problem and take suitable action to resolve it

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Preparing for water meter installation or replacement work</i> | 13 | 16 | - | - |
| PC1. obtain the information and details of the consumer for installation work | 1 | 1 | - | - |
| PC2. collect the necessary tools and equipment required for installation of smart water meter | 3 | 2 | - | - |
| PC3. check the functionality of tools and equipment before use | 1 | 2 | - | - |
| PC4. check that the main water line is laid correctly and there is enough place available between main water line and water supply line | 2 | 3 | - | - |
| PC5. identify the reason such as stoppage of meter, erratic consumption output, broken seal, damage of meter, service disconnection for changing the water meter in case of replacement of meter | 3 | 4 | - | - |
| PC6. locate the area inside the customer's premise near to main water line and check that the identified area is accessible to carry out installation, meter testing, commissioning, reading, recording and maintenance after assessing possible risks | 2 | 3 | - | - |
| PC7. 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 | 1 | 1 | - | - |
| <i>Installing or replacing a water meter</i> | 21 | 34 | - | - |
| PC8. connect the extra pipes with the water lines properly, if required | 2 | 3 | - | - |
| PC9. install or replace the duly tested water meter and required supportive equipment using appropriate tools and devices as per organizational procedures | 4 | 8 | - | - |

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| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| PC10. ensure that water meter is correct, examined and tested, and meets all the specifications set by the Bureau of Indian Standards (BIS) | 2 | 1 | - | - |
| PC11. ensure that the water connections are tighten properly and meter is covered with protection lid after installation | 2 | 3 | - | - |
| PC12. equip the water meter with various anti-tampering features as per regulations and organizational procedures | 2 | 4 | - | - |
| PC13. conduct the leakage test to ensure there is no water leaks in the pipe connections | 2 | 4 | - | - |
| PC14. test and calibrate the water meter using appropriate testing devices in line with organizational quality standards and regulations | 3 | 5 | - | - |
| PC15. check that replaced meter is working properly and customer's problems are duly resolved efficiently | 1 | 2 | - | - |
| PC16. ensure that water meter display is working properly and showing the water usage readings properly | 2 | 2 | - | - |
| PC17. escalate unresolved problems to appropriate authority for rectifications | 1 | 2 | - | - |
| <i>Recording meter details and readings</i> | 6 | 8 | - | - |
| PC18. record the meter data and maintain all the information related to the consumer's water meter | 2 | 3 | - | - |
| PC19. verify the accuracy of the meter data | 1 | 2 | - | - |
| PC20. maintain consumer meters' account history, installation date and testing details, calibration and replacement of meters in line with organizational standards and policies | 1 | - | - | - |
| PC21. fill the installation or service report and take acknowledgment from the customer | 1 | 2 | - | - |
| PC22. document the work completed for future records | 1 | 1 | - | - |



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| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|----------------------------------|--------------|-----------------|---------------|------------|
| NOS Total | 40 | 58 | - | - |



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National Occupational Standards (NOS) Parameters

| | |
|----------------------------|--|
| NOS Code | ELE/N5909 |
| NOS Name | Installation & troubleshoot of Smart Water Meter |
| Sector | Electronics |
| Sub-Sector | Consumer Electronics & IT Hardware |
| Occupation | Installation-S&L |
| NSQF Level | 3 |
| Credits | 4 |
| Version | 1.0 |
| Last Reviewed Date | NA |
| Next Review Date | 29/03/2026 |
| NSQC Clearance Date | 29/03/2023 |

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ELE/N5910: Installation & troubleshoot of Smart Gas Meter

Description

This unit is about installing, removing or changing and testing smart meters and meter supportive equipment that are used to record gas consumption in residential, commercial or industrial units.

Scope

The scope covers the following :

- Preparing for gas meter installation or replacement work
- Installing a gas meter appropriately
- Recording meter details and readings

Elements and Performance Criteria

Preparing for gas meter installation or replacement work

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

- PC1.** obtain the information and details of the consumer for installation work
- PC2.** collect the necessary tools and equipment required for installation of smart gas meter
- PC3.** check the functionality of tools and equipment before use
- PC4.** check that the main gas line is laid correctly as per the organizational standards
- PC5.** identify the reason such as stoppage of meter, erratic consumption output, broken seal, damage of meter, service disconnection for changing the gas meter in case of replacement of meter
- PC6.** locate the area inside the customer's premise and check that the identified area is accessible to carry out installation, meter testing, commissioning, reading, recording and maintenance after assessing possible risks
- PC7.** 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

Installing or replacing a water meter

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

- PC8.** ensure that the valves of main gas pipeline are closed properly before starting the installation procedure
- PC9.** drill hole in the wall to guide the main gas line connection inside the kitchen as per requirement
- PC10.** measure and the cut the pipes properly as per the requirement
- PC11.** mount the duly tested gas meter and required supportive equipment using appropriate tools and devices as per organizational procedures
- PC12.** connect the main gas pipe line to its respective end in gas meter and connect pipes to other end and guide it inside the kitchen through drilled hole
- PC13.** ensure that gas meter is correct, examined and tested, and meets all the specifications set by the Bureau of Indian Standards (BIS)

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- PC14.** ensure that the pipe connections are tighten and connected with the gas stove properly after installation
- PC15.** equip the gas meter with various anti-tampering features as per regulations and organizational procedures
- PC16.** conduct the gas leakage test to ensure there is no gas leaks in the pipe connections
- PC17.** test and calibrate the gas meter using appropriate testing devices in line with organizational quality standards and regulations
- PC18.** check that replaced meter is working properly and customer's problems are duly resolved efficiently
- PC19.** ensure that gas meter display is working properly and showing the gas readings properly
- PC20.** escalate unresolved problems to appropriate authority for rectifications

Recording meter details and readings

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

- PC21.** record the meter data and maintain all the information related to the consumer's gas meter
- PC22.** verify the accuracy of the meter data
- PC23.** maintain consumer meters' account history, installation date and testing details, calibration and replacement of meters in line with organizational standards and policies
- PC24.** fill the installation or service report and take acknowledgment from the customer
- PC25.** document the work completed for future records

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant legislation, standards, policies, and procedures followed in the organization
- KU2.** importance of using personal protective equipment (PPE) against possible hazards as described in the organizational health and safety guidelines and relevant regulations
- KU3.** basic principles of gas meters working
- KU4.** relevant terms, signs, symbols and other graphical representations and their respective interpretations
- KU5.** installation, operation and maintenance procedures of gas meter
- KU6.** how to obtain job specifications or work order from responsible authority
- KU7.** how to plan the work correctly using various safety control measures i.e. signs and barriers, demarcation of work area, control and removal of hazards and contamination protection
- KU8.** Safe Operating Procedure of using tools and equipment required during tasks
- KU9.**
 - various types of gas meters and their uses
 - Types of gas meters: Diaphragm/bellows meters, Rotary meters, Turbine meters, Orifice meters and Ultrasonic flow meters
- KU10.** different components of a smart gas meter and their functions
- KU11.** required meter specifications and selection parameters as per Indian Standards
- KU12.** compliance with gas meter standards set by Bureau of Indian Standards (BIS)
- KU13.** how to select suitable location for installing a gas meter

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- KU14.** standard features of a correct gas meter as defined by regulating body e.g. specification of meters, immunity to external factors, sealing points and functional requirements
- KU15.** how to place various anti-tampering features in gas meter
- KU16.** smart gas meters testing procedures
- KU17.** how to recognize and report inaccurate work instructions and documentation to designated personnel
- KU18.** how to record metered data, maintain information database and verify accuracy of compiled data

Generic Skills (GS)

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

- GS1.** record the information related to work and processes
- GS2.** write reports and observations related to work in English/regional language
- GS3.** read and interpret and process flowchart for all operations
- GS4.** read manuals and operation documents to understand the Equipment used into operation
- GS5.** discuss task lists, schedules and activities with the seniors and team members
- GS6.** follow organization rule-based decision-making process
- GS7.** take decisions with systematic course of actions and/or response
- GS8.** plan and organize tasks to meet deadlines
- GS9.** find ways of modifying difficult operating stages to make it operation friendly
- GS10.** apply domain information to set and define operation parameters that ensures economy and quality of the product
- GS11.** analyze the complexity of work to determine if it can be successfully carried out or needs to be referred to a superior/specialist
- GS12.** recognize a workplace problem and take suitable action to resolve it

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Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Preparing for gas meter installation or replacement work</i> | 13 | 16 | - | - |
| PC1. obtain the information and details of the consumer for installation work | 1 | 1 | - | - |
| PC2. collect the necessary tools and equipment required for installation of smart gas meter | 3 | 2 | - | - |
| PC3. check the functionality of tools and equipment before use | 1 | 2 | - | - |
| PC4. check that the main gas line is laid correctly as per the organizational standards | 2 | 3 | - | - |
| PC5. identify the reason such as stoppage of meter, erratic consumption output, broken seal, damage of meter, service disconnection for changing the gas meter in case of replacement of meter | 3 | 4 | - | - |
| PC6. locate the area inside the customer's premise and check that the identified area is accessible to carry out installation, meter testing, commissioning, reading, recording and maintenance after assessing possible risks | 2 | 3 | - | - |
| PC7. 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 | 1 | 1 | - | - |
| <i>Installing or replacing a water meter</i> | 21 | 34 | - | - |
| PC8. ensure that the valves of main gas pipeline are closed properly before starting the installation procedure | 1 | 1 | - | - |
| PC9. drill hole in the wall to guide the main gas line connection inside the kitchen as per requirement | 2 | 4 | - | - |
| PC10. measure and the cut the pipes properly as per the requirement | 2 | 4 | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| PC11. mount the duly tested gas meter and required supportive equipment using appropriate tools and devices as per organizational procedures | 3 | 5 | - | - |
| PC12. connect the main gas pipe line to its respective end in gas meter and connect pipes to other end and guide it inside the kitchen through drilled hole | 2 | 4 | - | - |
| PC13. ensure that gas meter is correct, examined and tested, and meets all the specifications set by the Bureau of Indian Standards (BIS) | 1 | 1 | - | - |
| PC14. ensure that the pipe connections are tighten and connected with the gas stove properly after installation | 1 | 2 | - | - |
| PC15. equip the gas meter with various anti-tampering features as per regulations and organizational procedures | 2 | 3 | - | - |
| PC16. conduct the gas leakage test to ensure there is no gas leaks in the pipe connections | 2 | 3 | - | - |
| PC17. test and calibrate the gas meter using appropriate testing devices in line with organizational quality standards and regulations | 2 | 4 | - | - |
| PC18. check that replaced meter is working properly and customer's problems are duly resolved efficiently | 1 | 1 | - | - |
| PC19. ensure that gas meter display is working properly and showing the gas readings properly | 1 | 1 | - | - |
| PC20. escalate unresolved problems to appropriate authority for rectifications | 1 | 1 | - | - |
| <i>Recording meter details and readings</i> | 6 | 10 | - | - |
| PC21. record the meter data and maintain all the information related to the consumer's gas meter | 2 | 3 | - | - |
| PC22. verify the accuracy of the meter data | 1 | 2 | - | - |



Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| PC23. maintain consumer meters' account history, installation date and testing details, calibration and replacement of meters in line with organizational standards and policies | 1 | 2 | - | - |
| PC24. fill the installation or service report and take acknowledgment from the customer | 1 | 2 | - | - |
| PC25. document the work completed for future records | 1 | 1 | - | - |
| NOS Total | 40 | 60 | - | - |



Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|--|
| NOS Code | ELE/N5910 |
| NOS Name | Installation & troubleshoot of Smart Gas Meter |
| Sector | Electronics |
| Sub-Sector | Consumer Electronics & IT Hardware |
| Occupation | Installation-S&L |
| NSQF Level | 3 |
| Credits | 4 |
| Version | 1.0 |
| Last Reviewed Date | NA |
| Next Review Date | 29/03/2026 |
| NSQC Clearance Date | 29/03/2023 |

Qualification Pack

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

Qualification Pack

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

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- 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, CO₂, 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 handling 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



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- 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

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Deal with workplace hazards</i> | 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 | - | - |
| <i>Apply fire safety practices</i> | 4 | 9 | - | - |
| PC10. take preventive measures to prevent fire hazards | 2 | 3 | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <p>PC11.</p> <ul style="list-style-type: none"> • 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 | 1 | 3 | - | - |
| <p>PC12. exhibit rescue and first-aid techniques in case of fire or electrocution</p> | 1 | 3 | - | - |
| <p><i>Follow emergencies, rescue and first-aid procedures</i></p> | 6 | 13 | - | - |
| <p>PC13. administer appropriate first aid to victims in case of bleeding, burns, choking, electric shock, poisoning etc.</p> | 1 | 3 | - | - |
| <p>PC14. administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock,</p> | 1 | 2 | - | - |
| <p>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</p> | 2 | 4 | - | - |
| <p>PC16. use correct method to move injured people and others during an emergency</p> | 2 | 4 | - | - |
| <p><i>Effective waste management/recycling practices</i></p> | 5 | 12 | - | - |
| <p>PC17. identify recyclable and non-recyclable, and hazardous waste generated</p> | 1 | 3 | - | - |
| <p>PC18. segregate waste into different categories</p> | 1 | 2 | - | - |
| <p>PC19. ensure disposal of non-recyclable waste appropriately</p> | 1 | 2 | - | - |
| <p>PC20. deposit non-recyclable and reusable material at identified location</p> | 1 | 3 | - | - |



Qualification Pack

| 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 |



Qualification Pack

DGT/VSQ/N0101: Employability Skills (30 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
- 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 job requirements

Constitutional values - Citizenship

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

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

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

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

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

PC4. speak with others using some basic English phrases or sentences

Communication Skills

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

PC5. follow good manners while communicating with others

PC6. work with others in a team

Qualification Pack

Diversity & Inclusion

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

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

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

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

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

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

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

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

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

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

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 basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services



Qualification Pack

- KU10.** how to compute income and expenses
- KU11.** importance of maintaining safety and security in financial transactions
- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Introduction to Employability Skills</i> | 1 | 1 | - | - |
| PC1. understand the significance of employability skills in meeting the job requirements | - | - | - | - |
| <i>Constitutional values - Citizenship</i> | 1 | 1 | - | - |
| PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices | - | - | - | - |
| <i>Becoming a Professional in the 21st Century</i> | 1 | 3 | - | - |
| PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc. | - | - | - | - |
| <i>Basic English Skills</i> | 2 | 3 | - | - |
| PC4. speak with others using some basic English phrases or sentences | - | - | - | - |
| <i>Communication Skills</i> | 1 | 1 | - | - |
| PC5. follow good manners while communicating with others | - | - | - | - |
| PC6. work with others in a team | - | - | - | - |
| <i>Diversity & Inclusion</i> | 1 | 1 | - | - |
| PC7. communicate and behave appropriately with all genders and PwD | - | - | - | - |
| PC8. report any issues related to sexual harassment | - | - | - | - |
| <i>Financial and Legal Literacy</i> | 3 | 4 | - | - |
| PC9. use various financial products and services safely and securely | - | - | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| PC10. calculate income, expenses, savings etc. | - | - | - | - |
| PC11. approach the concerned authorities for any exploitation as per legal rights and laws | - | - | - | - |
| <i>Essential Digital Skills</i> | 4 | 6 | - | - |
| PC12. operate digital devices and use its features and applications securely and safely | - | - | - | - |
| PC13. use internet and social media platforms securely and safely | - | - | - | - |
| <i>Entrepreneurship</i> | 3 | 5 | - | - |
| PC14. identify and assess opportunities for potential business | - | - | - | - |
| PC15. identify sources for arranging money and associated financial and legal challenges | - | - | - | - |
| <i>Customer Service</i> | 2 | 2 | - | - |
| PC16. identify different types of customers | - | - | - | - |
| PC17. identify customer needs and address them appropriately | - | - | - | - |
| PC18. follow appropriate hygiene and grooming standards | - | - | - | - |
| <i>Getting ready for apprenticeship & Jobs</i> | 1 | 3 | - | - |
| PC19. create a basic biodata | - | - | - | - |
| PC20. search for suitable jobs and apply | - | - | - | - |
| PC21. identify and register apprenticeship opportunities as per requirement | - | - | - | - |
| NOS Total | 20 | 30 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|---------------------------------|
| NOS Code | DGT/VSQ/N0101 |
| NOS Name | Employability Skills (30 Hours) |
| Sector | Cross Sectoral |
| Sub-Sector | Professional Skills |
| Occupation | Employability |
| NSQF Level | 2 |
| Credits | 1 |
| Version | 1.0 |
| Last Reviewed Date | NA |
| Next Review Date | 03/05/2026 |
| NSQC Clearance Date | 03/05/2023 |

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

SAME AS MENTIONED IN THE QP

Minimum Aggregate Passing % at QP Level : 50

(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

Qualification Pack

| National Occupational Standards | Theory Marks | Practical Marks | Project Marks | Viva Marks | Total Marks | Weightage |
|--|--------------|-----------------|---------------|------------|-------------|------------|
| ELE/N5908.Installation & troubleshoot of Smart Energy Meter | 40 | 56 | 0 | 0 | 96 | 20 |
| ELE/N5909.Installation & troubleshoot of Smart Water Meter | 40 | 58 | 0 | 0 | 98 | 20 |
| ELE/N5910.Installation & troubleshoot of Smart Gas Meter | 40 | 60 | 0 | 0 | 100 | 20 |
| ELE/N1002.Apply health and safety practices at the workplace | 35 | 65 | - | - | 100 | 20 |
| DGT/VSQ/N0101.Employability Skills (30 Hours) | 20 | 30 | - | - | 50 | 20 |
| Total | 175 | 269 | - | - | 444 | 100 |



Qualification Pack

Acronyms

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

Qualification Pack

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. |

Qualification Pack

| | |
|---|---|
| Knowledge and Understanding (KU) | <p>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.</p> |
| Organisational Context | <p>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.</p> |
| Technical Knowledge | <p>Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.</p> |
| Core Skills/ Generic Skills (GS) | <p>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.</p> |
| Electives | <p>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.</p> |
| Options | <p>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.</p> |