Model Curriculum

QP Name: Service Technician – Home Appliances

QP Code: ELE/Q3111

QP Version: 3.0

NSQF Level: 4

Model Curriculum Version: 3.0
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## Training Parameters

<table>
<thead>
<tr>
<th>Sector</th>
<th>Electronics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Sector</td>
<td>Consumer Electronics &amp; IT Hardware</td>
</tr>
<tr>
<td>Occupation</td>
<td>After Sales Service</td>
</tr>
<tr>
<td>Country</td>
<td>India</td>
</tr>
<tr>
<td>NSQF Level</td>
<td>4</td>
</tr>
<tr>
<td>Aligned to NCO/ISCO/ISIC Code</td>
<td>NCO-2015/7421.0701</td>
</tr>
</tbody>
</table>

### Minimum Educational Qualification and Experience

- 8th Grade Pass + NTC (2 years after 8th) + 2 Year NAC/relevant Experience
- OR
- 10th Grade pass + 2 Year NTC/NAC/ relevant experience
- OR
- Certificate-NSQF (Level-3 in Maintenance Technician) with 2 Years of relevant Experience
- OR
- 12th Class and 18 Years

### Pre-Requisite License or Training

- NA

### Minimum Job Entry Age

- 18 Years

### Last Reviewed On

- 27/01/2022

### Next Review Date

- 27/06/2025

### NSQC Approval Date

- 27/01/2022

### QP Version

- 3.0

### Model Curriculum Creation Date

- 27/01/2022

### Model Curriculum Valid Up to Date

- 27/06/2025

### Model Curriculum Version

- 3.0

### Maximum Duration of the Course

- 600 Hours
Program Overview

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

Training Outcomes
At the end of the program, the learner should have acquired the listed knowledge and skills:

- Describe the process of engaging with customer with service.
- Demonstrate the process of installation and repair Appliances.
- Explain the importance of following inclusive practices for all genders and PwD at work.
- Demonstrate various practices to be followed to maintain health and safety at work.

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

<table>
<thead>
<tr>
<th>NOS and Module Details</th>
<th>Theory Duration</th>
<th>Practical Duration</th>
<th>On-the-Job Training Duration (Recommended)</th>
<th>On-the-Job Training Duration (Mandatory)</th>
<th>Total Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge Module</td>
<td>06:00</td>
<td>04:00</td>
<td>00:00</td>
<td>00:00</td>
<td>10:00</td>
</tr>
<tr>
<td>Module 1: Introduction and orientation to the role of a Service Technician – Home Appliances</td>
<td>06:00</td>
<td>04:00</td>
<td>00:00</td>
<td>00:00</td>
<td>10:00</td>
</tr>
<tr>
<td>ELE/N3101: Engage with customer for service</td>
<td>60:00</td>
<td>90:00</td>
<td>00:00</td>
<td>60:00</td>
<td>210:00</td>
</tr>
<tr>
<td>Module 2: Process of engaging with customer with service</td>
<td>60:00</td>
<td>90:00</td>
<td>00:00</td>
<td>60:00</td>
<td>210:00</td>
</tr>
<tr>
<td>ELE/N3112: Perform installation and repair of refrigerator</td>
<td>60:00</td>
<td>110:00</td>
<td>00:00</td>
<td>90:00</td>
<td>260:00</td>
</tr>
<tr>
<td>Module 3: Process of performing installation and repair of refrigerator</td>
<td>60:00</td>
<td>110:00</td>
<td>00:00</td>
<td>90:00</td>
<td>260:00</td>
</tr>
<tr>
<td>ELE/N9905 Work effectively at the workplace</td>
<td>15:00</td>
<td>15:00</td>
<td>00:00</td>
<td>00:00</td>
<td>30:00</td>
</tr>
<tr>
<td>Module 4: Soft Skills and Work Ethics</td>
<td>15:00</td>
<td>15:00</td>
<td>00:00</td>
<td>00:00</td>
<td>30:00</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------</td>
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<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>ELE/N1002 Apply health and safety practices at the workplace</td>
<td>15:00</td>
<td>15:00</td>
<td>00:00</td>
<td>00:00</td>
<td>30:00</td>
</tr>
<tr>
<td>Module 5: Basic Health and Safety Practice</td>
<td>15:00</td>
<td>15:00</td>
<td>00:00</td>
<td>00:00</td>
<td>30:00</td>
</tr>
<tr>
<td>DGT/VSQ/N0102-Employability Skills (60 Hours)</td>
<td>24:00</td>
<td>36:00</td>
<td>00:00</td>
<td>00:00</td>
<td>60:00</td>
</tr>
<tr>
<td>Module 6: Employability Skills (60 Hours)</td>
<td>24:00</td>
<td>36:00</td>
<td>00:00</td>
<td>00:00</td>
<td>60:00</td>
</tr>
<tr>
<td><strong>Total Duration</strong></td>
<td>180:00</td>
<td>270:00</td>
<td>00:00</td>
<td>150:00</td>
<td>600:00</td>
</tr>
</tbody>
</table>
Module Details

Module 1: Introduction and orientation to the role of a Service Technician – Home Appliances

Bridge Module

Terminal Outcomes:

- Discuss the job role of a Service Technician – Home Appliances.

<table>
<thead>
<tr>
<th>Duration: 06:00</th>
<th>Duration: 04:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory – Key Learning Outcomes</td>
<td>Practical – Key Learning Outcomes</td>
</tr>
<tr>
<td>• Describe the size and scope of the electronics industry and its sub-sectors.</td>
<td>• Overview and Familiarization with the Home Appliances</td>
</tr>
<tr>
<td>• Discuss the role and responsibilities of a Service Technician – Home Appliances.</td>
<td></td>
</tr>
<tr>
<td>• Describe various employment opportunities for a Service Technician – Home Appliances.</td>
<td></td>
</tr>
</tbody>
</table>

Classroom Aids

Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

NA
Module 2: Process of engaging with customer with service
Mapped to ELE/N3101

Terminal Outcomes:

- Explain the importance of interacting with customer.
- Explain the need of suggesting possible solutions.

<table>
<thead>
<tr>
<th>Duration: 60:00</th>
<th>Duration: 90:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory – Key Learning Outcomes</strong></td>
<td><strong>Practical – Key Learning Outcomes</strong></td>
</tr>
<tr>
<td>Explain company’s policies on code of conduct, organisation's culture, customer care, reporting structure and documentation policy.</td>
<td>Demonstrate how to analyse the details of customer complaint registered at customer care or installation schedule.</td>
</tr>
<tr>
<td>State company’s products and recurring problems reported in consumer appliances.</td>
<td>Show how to check about warranty status of appliance and annual maintenance contract.</td>
</tr>
<tr>
<td>Explain precautions to be taken while handling field calls and dealing with customers.</td>
<td></td>
</tr>
<tr>
<td>Explain the importance of personal grooming with proper etiquettes at the customer's premises.</td>
<td></td>
</tr>
<tr>
<td>List basic electrical, mechanical modules of various appliances and electronics involved in the type of appliance.</td>
<td></td>
</tr>
<tr>
<td>State models of different appliances, their common and distinguishing features, functionality of different features of appliances and new features.</td>
<td></td>
</tr>
</tbody>
</table>

**Classroom Aids**

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

**Tools, Equipment and Other Requirements**

NA
Module 3: Process of installation and repairing appliances

Mapped to ELE/N3112

Terminal Outcomes:

- Describe the process of preparing for installation of the appliances.
- Demonstrate the process of installing refrigerator, air conditioner, washing machine, water purifier at customer location.
- Demonstrate the process of diagnosing, repairing and replacing the faulty module of appliances.

<table>
<thead>
<tr>
<th>Duration: 60:00</th>
<th>Duration: 110:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory – Key Learning Outcomes</strong></td>
<td><strong>Practical – Key Learning Outcomes</strong></td>
</tr>
<tr>
<td>Explain the company’s policy on product’s warranty, sales, installation, after sales support policy and other terms and conditions.</td>
<td>Demonstrate how to provide guidance to the customer for pre-installation requirement as per the appliance w.r.t platform for placing the appliance, plug point, etc.</td>
</tr>
<tr>
<td>Explain different types of refrigerators such as traditional, frost-free, peltier with all features and functionalities of various models.</td>
<td>Show how to make measurements at the location identified and drill holes, if required, ensuring no internal wiring damage takes place</td>
</tr>
<tr>
<td>State refrigerator manufacturing capabilities of the organisation, models of the company and their respective features.</td>
<td>Show how to remove the packaging from the appliance delivered at the customer location.</td>
</tr>
<tr>
<td>List installation-site requirements such as structural requirements, ventilation, etc.</td>
<td>Demonstrate the process of clearing up the packaging material waste and disposing it as per company’s norms.</td>
</tr>
<tr>
<td>Explain the refrigeration cycle and functioning of the appliance and its various modules, including various electromechanical parts of the refrigerator.</td>
<td>Demonstrate the process of fitting water-disposal beaker, handle, shelves, basket and side buckets.</td>
</tr>
<tr>
<td>Describe the method of refrigeration, its use and functioning of refrigerator sealed system.</td>
<td>Show how to connect the refrigerator to power supply and set cooling/freezer temperature knobs according to the season so as to demonstrate features/utility.</td>
</tr>
<tr>
<td>Explain types of refrigerants such as R12, R22, R134a, R290, R600a, R410, R32, use of different brazing sticks, types of brazing torches, fluxes and their application.</td>
<td>Show how to mount the indoor unit ensuring that the screws are fastened securely.</td>
</tr>
<tr>
<td>Describe manual-based procedure of installing the refrigerators.</td>
<td>Demonstrate how to connect the indoor and the outdoor units using the field copper pipe of appropriate size.</td>
</tr>
<tr>
<td>Describe methods of fixing various accessories, parts that have accompanied the unit and their</td>
<td>Demonstrate how to fill in additional gas if the distance between the indoor and the outdoor units is more</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Explain how to use the appliance and its various features/functionalities after installation.
- Explain the use of test equipment and tools such as multi-meter, oscilloscope etc.
- Explain safety precautions/rules, policies, procedures and quality standards to be followed.
- Explain the fundamentals of electricity such as ohms law, difference between ac and dc, understanding of domestic wiring, understanding of series and parallel connections.
- Explain how to rectify so as to avoid repeat fault in the refrigerator.
- Describe the process of selection of appropriate spares for replacement.
- Explain basic knowledge of components such as diode, transformer, LED, photo transistor, capacitor, thermistor ICs etc.
- Explain components/modules of refrigerators and their prices.
- Describe packaging waste disposal procedures.
- State refrigerator energy ratings such as BEE rating.
- State troubleshooting knowledge with respect to refrigerators.
- Explain various hazards, their causes and prevention/personal safety.
- Explain frequently occurring faults such as noise, water dripping and insufficient cooling, their causes and solutions.
- Describe other products of the company.

| 9 | Service Technician – Home Appliances |

- Show how to connect the machine's drain hose with the sewage pipe to ensure proper drainage.
- Demonstrate how to connect the waste water outlet from the washing machine to the waste system such that the dirty water does not get siphoned back into the washing machine.
- Demonstrate the process of operating and checking that there are no leaks and the machine is in a safe and stable condition.
- Show how to mount the filter and ensure that the screws are fastened securely.
- Demonstrate how to drain the inlet line before connecting it to the water purifier and connect the outlet pipe to the drain (if applicable).
- Demonstrate how to diagnose the fault based on customer interaction, usage pattern and initial inspection.
- Show how to unplug the appliance to carry out further inspection.
- Demonstrate the process of performing basic tests such as power supply inspection, volt ampere test and earth test power supply.
- Show how to inspect every module of the unit separately if the fault is not identified through basic tests such as compressor, motors, PCB, condenser optimise the time taken to fix the dysfunctional refrigerator.
- Demonstrate the process of repairing/replacing component at location, if the fault identified is due to damage of components.
- Show how to reassemble the unit to check that all the modules of the unit are working as per specifications.
- Demonstrate functionality of the unit to the customer.
- Show how to fill in customer
acknowledgement form and get it signed by customer, both in case of installation and repair.

- Prepare sample document of the work completed on the company ERP software for tracking.
- Prepare all sample documents related to complaint closure.
- Demonstrate how to escalate customer issues and problems that are unresolved at field level, including queries on non-field service areas.
- Roleplay how to provide training to junior level technicians about installation procedures, diagnosis procedures and customer handling.

<table>
<thead>
<tr>
<th>Classroom Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tools, Equipment and Other Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different types of Refrigerators, Multi-meter, Pressure Gauge, Electrical Drill, Clamp Meter, Tube Cutter, Tube Bender, Vacuum Pump, Weighing Scale, Gas Cylinder, Temperature meter, Spanner, Screw Driver set</td>
</tr>
</tbody>
</table>
Moduel 4: Soft Skills and Work Ethics
Mapped to ELE/N9905

Terminal Outcomes:

- Work effectively at the workplace.
- Implement the practices related to gender and PwD sensitization.

<table>
<thead>
<tr>
<th>Duration: 15:00</th>
<th>Duration: 15:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory – Key Learning Outcomes</strong></td>
<td><strong>Practical – Key Learning Outcomes</strong></td>
</tr>
<tr>
<td>• State the importance of work ethics and workplace etiquette</td>
<td>• Develop a sample plan to achieve organisational goals and targets.</td>
</tr>
<tr>
<td>• State the importance of effective communication and interpersonal skills.</td>
<td>• Create a sample feedback form to obtain feedback from customers, colleagues etc.</td>
</tr>
<tr>
<td>• Explain ways to maintain discipline at the workplace.</td>
<td>• Roleplay to demonstrate the use of professional language and behaviour that is respectful of PwD and all genders.</td>
</tr>
<tr>
<td>• Discuss the common reasons for interpersonal conflict and ways of managing them effectively.</td>
<td>• Apply organisational protocol on data confidentiality and sharing only with the authorised personnel.</td>
</tr>
<tr>
<td>• Discuss the importance of following organisational guidelines for dress code, time schedules, language usage and other behavioural aspects.</td>
<td></td>
</tr>
<tr>
<td>• Explain the importance of working as per the workflow of the organisation to receive instructions and report problems.</td>
<td></td>
</tr>
<tr>
<td>• Explain the importance of conveying information/instructions as per defined protocols to the authorised persons/team members.</td>
<td></td>
</tr>
<tr>
<td>• Explain the common workplace guidelines and legal requirements on non-disclosure and confidentiality of business-sensitive information.</td>
<td></td>
</tr>
<tr>
<td>• Describe the process of reporting grievances and unethical conduct such as data breaches, sexual harassment at the workplace, etc.</td>
<td></td>
</tr>
<tr>
<td>• Explain the concept and importance of gender sensitivity and equality.</td>
<td></td>
</tr>
<tr>
<td>• Discuss ways to create sensitivity for different genders and Persons with Disabilities (PwD).</td>
<td></td>
</tr>
</tbody>
</table>
- Discuss ways of dealing with heightened emotions of self and others.

### Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

### Tools, Equipment and Other Requirements

Sample Of Escalation Matrix, Organization Structure.
Module 5: Basic Health and Safety Practice

Terminal Outcomes:

- Apply health and safety practices at the workplace.

<table>
<thead>
<tr>
<th>Duration: 15:00</th>
<th>Practical – Key Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory – Key Learning Outcomes</strong></td>
<td><strong>Demonstrate the use of protective equipment suitable as per tasks and work conditions.</strong></td>
</tr>
<tr>
<td>Discuss job-site hazards, risks and accidents.</td>
<td><strong>Prepare a report to inform the relevant authorities about any abnormal situation/behaviour of any equipment/system.</strong></td>
</tr>
<tr>
<td>Explain the organizational safety procedures for maintaining electrical safety, handling tools and hazardous materials.</td>
<td><strong>Administer first aid in case of a minor accident.</strong></td>
</tr>
<tr>
<td>Elaborate on electronic waste disposal procedures.</td>
<td><strong>Demonstrate the steps to free a person from electrocution safely.</strong></td>
</tr>
<tr>
<td>Describe the process of disposal of hazardous waste</td>
<td><strong>Administer Cardiopulmonary Resuscitation (CPR).</strong></td>
</tr>
<tr>
<td>List the name and location of concerned people, documents and equipment for maintaining health and safety in the workplace.</td>
<td><strong>Demonstrate the application of defined emergency procedures such as raising alarm, safe/efficient, evacuation, moving injured people, etc.</strong></td>
</tr>
<tr>
<td>Describe how to interpret warning signs while accessing sensitive work areas.</td>
<td><strong>Prepare a sample incident report.</strong></td>
</tr>
<tr>
<td>Explain the importance of good housekeeping.</td>
<td><strong>Use a fire extinguisher in case of a fire incident.</strong></td>
</tr>
<tr>
<td>Describe the importance of maintaining appropriate postures while lifting heavy objects.</td>
<td><strong>Demonstrate the correct method of lifting and handling heavy objects.</strong></td>
</tr>
<tr>
<td>List the types of fire and fire extinguishers.</td>
<td><strong>List the common sources of pollution and ways to minimize it.</strong></td>
</tr>
<tr>
<td>Explain the importance of efficient utilisation of water, electricity and other resources.</td>
<td><strong>Describe the concept of waste management and methods of disposing hazardous waste.</strong></td>
</tr>
<tr>
<td>List the common sources of pollution and ways to minimize it.</td>
<td><strong>Explain various warning and safety signs.</strong></td>
</tr>
<tr>
<td>Demonstrate the correct method of lifting and handling heavy objects.</td>
<td><strong>Describe different ways of preventing accidents at the workplace.</strong></td>
</tr>
<tr>
<td><strong>Classroom Aids</strong></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Tools, Equipment and Other Requirements</strong></th>
</tr>
</thead>
</table>
Module 6: Employability Skills (60 Hours)
Mapped to DGT/VSQ/N0102

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

<table>
<thead>
<tr>
<th>Duration: 24:00</th>
<th>Duration: 36:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory – Key Learning Outcomes</strong></td>
<td><strong>Practical – Key Learning Outcomes</strong></td>
</tr>
<tr>
<td>• Explain constitutional values, civic rights, responsibility towards society to become a responsible citizen</td>
<td>• List different learning and employability related GOI and private portals and their usage</td>
</tr>
<tr>
<td>• Discuss 21st century skills</td>
<td>• Show how to practice different environmentally sustainable practices.</td>
</tr>
<tr>
<td>• Explain use of basic English phrases and sentences.</td>
<td>• Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, etc.</td>
</tr>
<tr>
<td>• Demonstrate how to communicate in a well-behaved manner</td>
<td>• Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone</td>
</tr>
<tr>
<td>• Demonstrate how to work with others</td>
<td>• Demonstrate how to communicate in a well-mannered way with others.</td>
</tr>
<tr>
<td>• Demonstrate how to operate digital devices</td>
<td>• Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette</td>
</tr>
<tr>
<td>• Discuss the significance of Internet and Computer/ Laptops</td>
<td>• Utilize virtual collaboration tools to work effectively</td>
</tr>
<tr>
<td>• Discuss the need for identifying business opportunities</td>
<td>• Demonstrate how to maintain hygiene and dressing appropriately.</td>
</tr>
<tr>
<td>• Discuss about types of customers.</td>
<td>• Perform a mock interview</td>
</tr>
<tr>
<td>• Discuss on creation of biodata</td>
<td></td>
</tr>
<tr>
<td>• Discuss about apprenticeship and opportunities related to it.</td>
<td></td>
</tr>
</tbody>
</table>

**Classroom Aids**
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

**Tools, Equipment and Other Requirements**
Computer, UPS, Scanner, Computer Tables, LCD Projector, Computer Chairs, White Board
OR
Computer Lab
Module 7: On-the-Job Training

Mapped to Service Technician – Home Appliances

<table>
<thead>
<tr>
<th>Mandatory Duration: 150:00</th>
<th>Recommended Duration: 00:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: On Site</td>
<td></td>
</tr>
</tbody>
</table>

**Terminal Outcomes**

1. Check the warranty status of the appliance and annual maintenance contract.
2. Clearing up the packaging material waste and disposing it as per company’s norms.
3. Fitting water-disposal beaker, handle, shelves, basket and side buckets.
4. Diagnose the fault.
5. Perform basic tests such as power supply inspection, volt ampere test and earth test power supply.
6. Reassemble the unit to check that all the modules of the unit are working as per specifications.
7. Inspect the tools and fitments required for the installation are available.
8. Align the air conditioner as per the instructions manual and make necessary power supply connections.
10. Communicating effectively at the workplace.
11. Applying health and safety practices at the workplace.
## Annexure

### Trainer Requirements

<table>
<thead>
<tr>
<th>Minimum Educational Qualification</th>
<th>Specialization</th>
<th>Relevant Industry Experience</th>
<th>Training Experience</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma/ ITI/ Certified in relevant CITS Trade</td>
<td>Electrical/ Electronics/ Mechanical</td>
<td>1</td>
<td>After Sales Services</td>
<td>Electronics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain Certification</th>
<th>Platform Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Service Technician – Home Appliances”, “ELE/Q3111, v3.0”, Minimum accepted score is 80%</td>
<td>Recommended that the Trainer is certified for the Service Technician – Home Appliances “Trainer (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2601, V2.0”, with minimum score of 80%</td>
</tr>
</tbody>
</table>
## Assessor Requirements

### Assessor Prerequisites

<table>
<thead>
<tr>
<th>Minimum Educational Qualification</th>
<th>Specialization</th>
<th>Relevant Industry Experience</th>
<th>Training/Assessment Experience</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma/ ITI/ Certified in relevant CITS Trade</td>
<td>Electrical/ Electronics/ Mechanical</td>
<td>2</td>
<td>After Sales Services</td>
<td>1</td>
</tr>
</tbody>
</table>

### Assessor Certification

<table>
<thead>
<tr>
<th>Domain Certification</th>
<th>Platform Certification</th>
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</thead>
<tbody>
<tr>
<td>“Service Technician – Home Appliances”, “ELE/Q3111, v3.0”, Minimum accepted score is 80%</td>
<td>Recommended that the Assessor is certified for the Service Technician – Home Appliances “Assessor (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, V2.0”, with minimum score of 80%</td>
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</tbody>
</table>
Assessment Strategy

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

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

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

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

5. Method of verification or validation:
   To verify the details submitted by the training centre, the assessor will undertake:
   - A surprise visit to the assessment location
   - A random audit of the batch
   - A random audit of any candidate

6. Method for assessment documentation, archiving, and access
   To protect the assessment papers and information, the assessor will ensure:
   - Hard copies of the documents are stored
• Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
• Soft copies of the documents & photographs of the assessment are stored on the Hard drive
### References

#### Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Declarative knowledge</td>
<td>Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.</td>
</tr>
<tr>
<td>Key Learning</td>
<td>Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).</td>
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<tr>
<td>OJT (M)</td>
<td>On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site</td>
</tr>
<tr>
<td>OJT (R)</td>
<td>On-the-job training (Recommended); trainees are recommended the specified hours of training on site</td>
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<tr>
<td>Procedural Knowledge</td>
<td>Procedural knowledge addresses how to do something, or how to perform a</td>
</tr>
<tr>
<td>Training Outcome</td>
<td>Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.</td>
</tr>
<tr>
<td>Terminal Outcome</td>
<td>Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.</td>
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</table>
## Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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<tbody>
<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
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<tr>
<td>NCO</td>
<td>National Occupational Standards</td>
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<tr>
<td>NOS</td>
<td>National Skills Qualification Committee</td>
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<tr>
<td>NSQF</td>
<td>National Skills Qualification Framework</td>
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<tr>
<td>OJT</td>
<td>On-the-Job Training</td>
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<tr>
<td>OMR</td>
<td>Optical Mark Recognition</td>
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<td>PC</td>
<td>Performance Criteria</td>
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<td>PwD</td>
<td>Persons with Disabilities</td>
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<td>QP</td>
<td>Qualification Pack</td>
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<td>SDMS</td>
<td>Skill Development &amp; Management System</td>
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<td>SIP</td>
<td>Skill India Portal</td>
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<td>SME</td>
<td>Small and Medium Enterprises</td>
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<td>SOP</td>
<td>Standard Operating Procedure</td>
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<td>SSC</td>
<td>Sector Skill Council</td>
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<td>TC</td>
<td>Trainer Certificate</td>
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<tr>
<td>ToA</td>
<td>Training of Assessors</td>
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<tr>
<td>ToT</td>
<td>Training of Trainers</td>
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<tr>
<td>TP</td>
<td>Training Provider</td>
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