



Model Curriculum

QP Name: Multi Skill Technician-Consumer Durables

OEM Qualification Name: Multi Skill Technician-Consumer Durables

QP Code: ELE/Q3118

QP Version: 2.0

NSQF Level: 4

Model Curriculum Version: 2.0

Electronics Sector Skills Council of India | | 155, 2nd Floor ESC House, Okhla Industrial Area – Phase 3, New Delhi - 110020

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Training Parameters

Sector	Electronics
Sub-Sector	Consumer Electronics and IT Hardware
Occupation	After Sales Service
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7421.0701
Minimum Educational Qualification and Experience	12th grade or equivalent OR 10th grade or equivalent with 3 years relevant experience OR Certificate-NSQF (Level 3 in relevant domain) with 3 years of relevant experience # Relevant Experience in Consumer Electronics & IT Hardware
Pre-Requisite License or Training	NA
Minimum Job Entry Age	NA
Last Reviewed On	16/12/2025
Next Review Date	18/11/2028
NSQC Approval Date	16/12/2025
QP Version	2.0
Model Curriculum Creation Date	16/12/2025
Model Curriculum Valid Up to Date	18/11/2028
Model Curriculum Version	2.0
Minimum Duration of the Course	660 Hours (Min Duration) 1260 Hours (Max Duration)

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.

Elective 1

- Perform installation and repairing of refrigerator (DIOS).
- Perform installation and repairing of washing machine.
- Perform installation and repairing of dish washer.
- Perform installation and repairing of air conditioner.
- Perform gas charging in AC and refrigerator.

Elective 2

- Perform installation and repairing of TV.
- Perform installation and repairing of microwave.
- Perform installation and repairing of water purifier (DIOS).
- Perform installation and repairing of basic refrigerator and washing machine.
- Perform installation and repairing of QLED TV/monitor.

Elective Modules

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

Elective 1

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
ELE/N3169 - Installation and repair of Refrigerator (DIOS) NOS Version No. 2.0 NSQF Level 4	30:00	60:00	30:00	-	120:00
Module 1: Introduction to the role of Multi skill Technician - Consumer Durables	5:00	0:00	-	-	5:00
Module 2: Install and repair Refrigerator (DIOS)	25:00	60:00	30:00	-	115:00
ELE/N3170 - Installation and repair of Washing machine NOS Version No. 2.0 NSQF Level 4	30:00	60:00	30:00	-	120:00
Module 3: Install and repair washing machine	30:00	60:00	30:00	-	120:00
ELE/N3163 - Installation and repair of Dish Washer NOS Version No. 2.0 NSQF Level 4	30:00	60:00	30:00	-	120:00
Module 4: Install and repair dish washer	30:00	60:00	30:00	-	120:00

ELE/N3162 - Installation and repair of Air Conditioner NOS Version No. 2.0 NSQF Level 4	30:00	90:00	30:00	-	150:00
Module 5: Install and repair air conditioner	30:00	90:00	30:00	-	150:00
ELE/N3161 - Gas Charging in the refrigerator and AC NOS Version No. 2.0 NSQF Level 4	30:00	30:00	30:00	-	90:00
Module 6: Perform gas charging in refrigerator and AC	30:00	30:00	30:00	-	90:00
Total Duration	150:00	300:00	150:00	-	600:00

Elective 2

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
ELE/N3168 - Installation and repair of TV NOS Version No. 2.0 NSQF Level 4	30:00	60:00	30:00		120:00
Module 7: Install and repair TV	30:00	60:00	30:00		120:00
ELE/N3167 - Installation and repair of microwave NOS Version No. 2.0 NSQF Level 4	30:00	60:00	30:00		120:00
Module 8: Install and repair microwave	30:00	60:00	30:00		120:00
ELE/3166 - Installation and repair of water purifier NOS Version No. 2.0 NSQF Level 4	30:00	60:00	30:00		120:00
Module 9: Install and repair water purifier	30:00	60:00	30:00		120:00
ELE/N3165 - Installation and repair of basic refrigerator and washing machine NOS Version No. 2.0 NSQF Level 4	30:00	90:00	30:00		150:00
Module 10: Install and repair refrigerator and washing machine	30:00	90:00	30:00		150:00
ELE/N3164 - Installation and repair of OLED TV/ Monitor NOS Version No. 2.0 NSQF Level 4	30:00	30:00	30:00		90:00
Module 11: Install and repair OLED TV/monitor	30:00	30:00	30:00		90:00
Total Duration	150:00	300:00	150:00		600:00

Compulsory Modules

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

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
DGT/VSQ/N0102 - Employability Skills (60 hours) NOS Version No. – 1.0 NSQF Level – 4	24:00	36:00	-	-	60:00
Module 12: Introduction to Employability Skills	0.5:00	1:00	-	-	1.5:00
Module 13: Constitutional values - Citizenship	0.5:00	1:00	-	-	1.5:00
Module 14: Becoming a Professional in the 21st Century	1:00	1.5:00	-	-	2.5:00
Module 15: Basic English Skills	4:00	6:00	-	-	10:00
Module 16: Career Development & Goal Setting	1:00	1:00	-	-	2:00
Module 17: Communication Skills	2:00	3:00	-	-	5:00
Module 18: Diversity & Inclusion	1:00	1.5:00	-	-	2.5:00
Module 19: Financial and Legal Literacy	2:00	3:00	-	-	5:00
Module 20: Essential Digital Skills	4:00	6:00	-	-	10:00
Module 21: Entrepreneurship	3:00	4:00	-	-	7:00
Module 22: Customer Service	2:00	3:00	-	-	5:00
Module 23: Getting ready for apprenticeship & Jobs	3:00	5:00	-	-	8:00
Total Duration	24:00	36:00	-	-	60:00

Module Details

Module 1: Introduction to the role of Multi skill Technician - Consumer Durables

Mapped to ELE/Q3118 & V2.0

Terminal Outcomes:

- List the role and responsibilities of a Multi skill Technician - Consumer Durables.

Duration: 5:00	Duration: 0:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the size and scope of the electronics industry and its various sub- sectors. • Discuss the various opportunities for a Multi skill Technician - Consumer Durables in the industry. • Define the basics of electronics and related concepts. • Discuss the role and responsibilities of a Multi skill Technician - Consumer Durables. • Describe functioning of basic electronics (knowledge of components such as diode, transformer, LED, photo transistor, capacitor, resistor, inductor, thermistor, ICs. • Describe fundamentals of electricity such as ohms law, difference between ac and dc, 	
Classroom Aids:	
Laptop, white board, marker, projector	
Tools, Equipment and Other Requirements	
Voltmeter, Ammeter, Wattmeter, basic components	

Module 2: Install and repair Refrigerator (DIOS)

Mapped to ELE/N3169 & V2.0

Terminal Outcomes:

- Perform steps to install a refrigerator (DIOS).
- Perform steps to troubleshoot and repair a refrigerator (DIOS).

Duration: 25:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Understand the working principle and installation requirements of inverter-based, smart, and energy-efficient refrigerators. • Explain safety precautions and standard practices to be followed before and during installation or repair work. • Discuss the latest technical updates related to inverter technology, smart connectivity, and IoT-enabled refrigerators. • Identify the information and details required from the customer before starting installation or repair work. • List and describe the use of tools, testing instruments, and diagnostic devices such as digital multimeter, vacuum gauge, leak detector, and refrigerant recovery machine. • Explain the importance of checking functionality of tools and equipment before use. • Identify the types of PPE required for different work conditions and hazards as per Indian or international standards. • Describe common health and safety hazards related to electrical, mechanical, and refrigerant handling work. • Explain precautions to be taken while handling tools, equipment, and hazardous substances. • Describe the product specifications such as compressor type, model, energy rating, and IoT compatibility of the refrigerator (DIOS). • List all supporting accessories provided with the refrigerator and their purpose. • Discuss the factors to consider when selecting a space for installation, including Wi-Fi signal strength, ventilation, and 	<ul style="list-style-type: none"> • Identify and collect the required tools, testing instruments, and diagnostic devices for installation and repair work. • Check the condition and functionality of tools and equipment before use. • Use appropriate PPE as per the task and workplace safety standards. • Follow standard safety procedures while handling tools, equipment, and hazardous materials. • Unpack the refrigerator (DIOS) and verify product specifications, model, and accessories with the invoice. • Select and prepare the appropriate installation location considering Wi-Fi range, ventilation, and energy efficiency. • Check site readiness including availability of power point, proper leveling, and clearance from walls. • Install and fix refrigerator parts and accessories as per the manufacturer's manual. • Connect the refrigerator to power supply using a surge protector or stabilizer and verify grounding of the socket. • Configure and demonstrate refrigerator settings, temperature control, and user interface to the customer. • Install and connect the refrigerator (DIOS) with the customer's smartphone through the smart application. • Demonstrate remote monitoring and control through app or voice assistant integration. • Guide the customer on daily operation, care, and safety precautions for refrigerator use. • Identify and diagnose faults in the refrigerator through observation, customer feedback, and smart app diagnosis.

<p>energy efficiency.</p> <ul style="list-style-type: none"> Explain the basic site requirements such as availability of power point, surface level, and wall clearance. Discuss the effects of exposing the rear of the refrigerator or placing it in damp and dusty areas. Describe the need for surge protectors, voltage stabilizers, and proper earthing of power outlets. Explain various functions and features of the refrigerator (DIOS) at different temperature settings. Describe the process of connecting and configuring the refrigerator with a customer's smartphone using the smart application. Explain how to operate, monitor, and control refrigerator functions remotely through app and voice assistant integration. Discuss day-to-day care activities and precautions while using the refrigerator (DIOS). Identify common faults and unusual operating conditions in refrigerators. Explain the basic troubleshooting process and diagnostic methods using testing instruments and smart applications. Describe the steps for safe removal, replacement, and reassembly of components during repair. Explain the importance of checking the performance of all modules after repair. Discuss proper methods of waste disposal and packaging clearance as per E-waste management norms. Explain the need for accurate documentation, service reporting, and record-keeping after installation or repair. 	<ul style="list-style-type: none"> Perform basic electrical and functional tests such as power supply, voltage, compressor, and condenser checks. Refill refrigerant gas or replace faulty components following safety and manufacturer guidelines. Reassemble and test the refrigerator after repair to ensure proper operation. Manage packaging and waste responsibly as per E-waste management norms. Complete documentation, service reports, and take customer acknowledgment. Maintain records of installation and repair work for future reference.
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Classroom Aids:

Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers

Tools, Equipment and Other Requirements

Refrigerator (DIOS), Digital Thermometer / Infrared Thermometer, Clamp Meter, Digital Multimeter, Power Quality Analyzer, Pressure Gauge, IoT-Based Electronic Leak Detector (only for cooling circuit issues), Screwdriver Set (Combination / Multitech), Combination Plier, Nose Plier, Cutting Plier / Wire Stripper, Open Spanner Set, Adjustable Wrench, Brush, File (Flat & Half Round), Heat Gun, Blower / Vacuum Cleaner (2-in-1), PVC Tape, Cable Tie Pack, Spirit Level & Measuring Tape, Refrigerator (Direct Cool / Frost-free / Inverter / DIOS models), Laptop/PC for Diagnostics Software.

Module 3: Install and repair washing machine

Mapped to ELE/N3170 & V2.0

Terminal Outcomes:

- Perform steps to install a washing machine.
- Perform steps to troubleshoot and repair a washing machine.

Duration: 30:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Understand the working principle and installation requirements of different types of washing machines (top load, front load, semi-automatic, and fully automatic). • Explain the purpose and function of major electromechanical parts such as motor, pump, solenoid, valves, sensors, and control panel. • Describe the safety precautions and standard procedures to be followed during installation and repair. • Identify personal protective equipment (PPE) required for specific work conditions as per Indian/International standards. • Discuss common hazards associated with electrical, mechanical, and water-based operations and methods to prevent them. • Explain the need for proper leveling, placement, and clearance during installation to ensure stability and performance. • Describe the requirements for power supply, earthing, and water connections for safe and effective machine operation. • Identify and explain the use of tools, measuring instruments, and testing devices used for installation and troubleshooting. • Explain the functioning of various washing cycles such as wash, rinse, spin, and drain. • Discuss common problems and their causes during machine operation such as leaks, imbalance, or no power. • Describe the process for diagnosing faults using inspection, testing instruments, and visual observation. • Explain the importance of following the electrical circuit path while locating faults in the control or motor system. • Discuss cleaning and maintenance 	<ul style="list-style-type: none"> • Collect and verify the tools, testing instruments, and accessories required for washing machine installation and repair. • Check the condition and functionality of tools and equipment before use. • Use appropriate PPE and follow safety procedures while performing installation or repair work. • Unpack and verify the washing machine specifications and model details against the invoice. • Identify the suitable location for installation considering water supply, drainage, and power availability. • Install the washing machine on a level surface and ensure correct connection of inlet hose, drain pipe, and power cord. • Remove transport pins and perform pre-start checks before operating the machine. • Operate the washing machine through a full cycle to ensure proper functioning and absence of leaks. • Demonstrate the features and use of the control panel to the customer. • Guide the customer on daily care, maintenance, and precautions while using the washing machine. • Perform visual inspection and preliminary tests to identify faults reported by the customer. • Conduct diagnostic tests such as voltage, continuity, and water pressure checks. • Dismantle the machine safely and identify faults in control panels, sensors, valves, and switches. • Follow the circuit diagram to trace and rectify electrical faults. • Clean internal components such as filters, hoses, and drum, and remove soap deposits.

procedures for the drum, filters, and water hoses as per the SOP. <ul style="list-style-type: none"> • Describe the documentation required after installation and repair, including service reports and customer acknowledgment. • Explain the importance of proper waste disposal and adherence to company norms during post-installation activities. 	<ul style="list-style-type: none"> • Replace faulty parts and reassemble the machine correctly. • Conduct a trial run and verify that the repaired washing machine functions as per specifications. • Document the service or repair performed and obtain customer acknowledgment. • Dispose of packaging and waste materials safely as per company norms. • Maintain records of installation and repair activities for future reference.
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Classroom Aids:

Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers

Tools, Equipment and Other Requirements

Washing machine (Automatic and semi-automatic), Screwdriver Set (Combination / Multitech), Line Tester, Combination Plier, Nose Plier, Cutting Plier / Wire Stripper, Adjustable Wrench, Open Spanner Set, Digital Multimeter, Clamp Meter, Digital Tachometer / RPM Meter, Spirit Level & Measuring Tape, Cordless Drill Machine with Bits, Blower / Vacuum Cleaner (2-in-1), Heat Gun, PVC Tape, Cable Tie Pack, Water Pressure Gauge (if required), Washing Machine (Top & Front Load), First Aid Kit & Fire Extinguisher.

Module 4: Install and repair dish washer

Mapped to ELE/N3163 & V2.0

Terminal Outcomes:

- Perform steps to install a dish washer.
- Perform steps to troubleshoot and repair a dish washer.

Duration: 30:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Understand the basic working principles, installation requirements, and operational process of dishwashers. • Explain various components of a dishwasher such as pump, motor, spray arms, heating element, sensors, and control modules. • Describe the safety precautions and PPE required while handling electrical and plumbing connections during installation or servicing. • Explain common electrical, mechanical, and water-related faults that may occur in dishwashers and their causes. • Describe the process of site inspection, including assessing space availability, water supply, drainage, and power outlet requirements. • Explain how to interpret manufacturer manuals, wiring diagrams, and installation SOPs. • Discuss the use of tools and testing equipment such as multimeter, clamp meter, and continuity tester in fault diagnosis. • Explain standard procedures for dismantling, cleaning, and reassembling dishwasher components. • Describe maintenance practices to enhance machine performance and service life. • Explain documentation and customer interaction processes, including service reports and feedback collection. • Discuss the importance of staying updated with new models, IoT-enabled dishwashers, and diagnostic tools in the industry. • Describe company norms for safe disposal of waste, environmental compliance, and 	<ul style="list-style-type: none"> • Identify tools, instruments, and PPE required for dishwasher installation and repair. • Check and verify the functional condition of tools and accessories before use. • Inspect site conditions and select an appropriate location for installation near the sink or water supply. • Unpack the dishwasher, verify product specifications, and check all accessories as per the invoice and manual. • Prepare the installation area by leveling the surface, ensuring water inlet and outlet connectivity, and checking power supply. • Connect inlet and drain hoses, plug in the power cord, and install the machine as per manufacturer SOP. • Perform operational checks to ensure there are no leaks and that the machine runs smoothly. • Demonstrate to the customer the use of the control panel and machine functions. • Guide customers about regular cleaning, descaling, and maintenance activities for better performance. • Perform initial inspections and diagnose problems based on customer feedback and visual checks. • Carry out electrical tests (continuity, voltage, insulation) and mechanical tests (leakage, rotation) to identify faults. • Dismantle faulty parts like valves, pumps, or heating elements following safety guidelines. • Replace or repair components onsite or send them to the service center if required. • Reassemble the machine, perform a trial run, and verify its operation with the customer. • Prepare service documentation and obtain customer acknowledgment.

<p>post-installation housekeeping.</p>	<ul style="list-style-type: none"> • Dispose of waste packaging and used parts as per company and environmental norms. • Maintain installation and service records for future reference. • Stay familiar with new diagnostic tools, IoT features, and updated repair practices used in modern dishwashers.
<p>Classroom Aids:</p>	
<p>Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers</p>	
<p>Tools, Equipment and Other Requirements</p>	
<p>Screwdriver Set (Combination / Multitech), Line Tester, Combination Plier, Cutting Plier / Wire Stripper, Adjustable Wrench, Open Spanner Set, Digital Multimeter, Clamp Meter, Spirit Level & Measuring Tape, Cordless Drill Machine with Bits, PVC Tape, Cable Tie Pack, Blower / Vacuum Cleaner (2-in-1), Test Lamp Assembly (AC/DC), Domestic Wiring Board Setup, First Aid Kit & Fire Extinguisher.</p>	

Module 5: Install and repair Air Conditioner (AC)

Mapped to ELE/N3162 & V2.0

Terminal Outcomes:

- Perform steps to install an AC.
- Perform steps to troubleshoot and repair an AC.

Duration: 30:00	Duration: 90:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Understand the basic principles and working of air conditioning systems, including vapor compression and inverter technology. • Explain the importance of following safety procedures while handling refrigerants, electrical components, and installation tools. • Describe the types of air conditioners (window, split, inverter, eco-friendly refrigerant-based) and their components such as compressor, condenser, evaporator, and PCB. • Explain the function and purpose of refrigerants (R-32, R-290, etc.) and the need for eco-friendly and energy-efficient systems. • Identify tools, equipment, and PPE used for installation, maintenance, and repair activities. • Discuss the process of site inspection and determining the suitability of the installation area (structural requirements, ventilation, and electrical access). • Explain the step-by-step installation process for window and split air conditioners as per manufacturer's manual. • Describe the use of torque tools, vacuum pump, gas charging manifold, and leak detection devices during installation. • Explain the procedure for checking electrical connections, circuit breakers, and grounding before operation. • Describe the methods of identifying and rectifying faults related to power supply, compressor, refrigerant leakage, or PCB malfunction. • Explain preventive maintenance practices such as filter cleaning, coil maintenance, 	<ul style="list-style-type: none"> • Identify tools, testing instruments, and PPE required for air conditioner installation and repair. • Verify the functionality of tools, gauges, and testing equipment before use. • Inspect the site and interact with the customer to confirm installation requirements. • Unpack and verify AC specifications, model, capacity, and type against the invoice. • Install circuit breaker switches, drainage lines, and electrical connections as per manufacturer SOP • Install window air conditioners by leveling, securing, and sealing the unit to prevent vibration and noise. • Mount indoor and outdoor units of split AC, ensuring structural support and correct spacing. • Connect refrigerant pipes, communication cables, and drain hoses securely to avoid leakage • Check refrigerant type and pressure, perform leak detection tests using electronic detectors, and charge gas if required. • Conduct operational testing using remote control and verify cooling performance and airflow. • Demonstrate the functioning of the control system and remote features to the customer. • Diagnose faults related to power supply, refrigerant leakage, compressor issues, or inverter PCB failure. • Perform voltage, current, and earth resistance tests to verify electrical safety. • Dismantle and replace faulty modules or components and reassemble the unit.

<ul style="list-style-type: none"> and condensate drainage inspection. Discuss documentation, billing, and customer acknowledgment processes after service or installation. Explain the need for continuous learning about the latest refrigerants, inverter technology, and IoT-enabled diagnostic tools. Describe waste management and environmental safety norms related to refrigerant handling and packaging disposal. 	<ul style="list-style-type: none"> Refill refrigerant gas following safety and environmental guidelines. Conduct final checks for vibration, noise, leakage, and cooling efficiency. Maintain proper documentation including service reports, warranty forms, and acknowledgment receipts. Dispose of packaging and waste materials safely as per company policy. Guide customers on routine cleaning, filter maintenance, and safe operation. Stay updated with new models, digital diagnostic tools, and IoT-based service techniques.
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Classroom Aids:

Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers

Tools, Equipment and Other Requirements

Cordless Drill Machine with Bits, Spirit Level & Measuring Tape, Digital Thermometer / Infrared Thermometer, Vacuum Pump (Manual/Electric), Refrigerant Manifold Gauge Set / Bluetooth-Enabled Digital Manifold Gauge Set, IoT-Based Electronic Leak Detector, Flaring and Swaging Tool Kit, Pressure Gauge, Clamp Meter, Digital Multimeter, Insulation Tester (Megger), Power Quality Analyzer, Blower / Vacuum Cleaner (2-in-1), Heat Gun, Screwdriver Set (Combination / Multitech), Combination Plier, Nose Plier, Cutting Plier / Wire Stripper, Adjustable Wrench, Open Spanner Set, Hammer, PVC Tape, Insulation Tube, Cable Tie Pack, First Aid Kit & Fire Extinguisher, AC Demo Unit.

Module 6: Perform gas charging in refrigerator and AC

Mapped to ELE/N3161 & V2.0

Terminal Outcomes:

- Perform steps to fill gas in a refrigerator.
- Perform steps to fill gas in AC.

Duration: 30:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the purpose and safety requirements of gas charging in refrigerators and air conditioners. • Identify various types of refrigerants (R-32, R-290, R-600a, R-134a, etc.) and their environmental and safety standards. • Describe the tools, gauges, cylinders, and accessories used in gas charging operations. • Explain the procedure to determine the need for gas charging based on pressure readings and manufacturer recommendations. • State the importance of verifying refrigerant compatibility with the appliance and charging equipment. • Describe the precautions to prevent gas leakage and ensure safety during and after gas filling. • Explain documentation and reporting procedures after gas charging work. • Understand waste disposal, payment, and record-keeping norms as per company guidelines. 	<ul style="list-style-type: none"> • Identify the model, type, and refrigerant specifications of AC or refrigerator units. • Select and arrange appropriate tools, cylinders, and connecting hoses for gas charging. • Connect pressure gauges and measure gas pressure accurately. • Perform gas charging in AC and refrigerator units following standard procedure. • Monitor pressure during gas filling and stop when the recommended pressure is reached. • Check for gas leakage at connections using appropriate methods. • Test and confirm proper cooling operation after gas charging. • Dispose of waste materials safely and complete service documentation and reporting.
Classroom Aids:	
Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers	
Tools, Equipment and Other Requirements	
AC (split and window), Digital Thermometer / Infrared Thermometer, Pressure Gauge, Vacuum Pump (Manual/Electric), Refrigerant Manifold Gauge Set / Bluetooth-Enabled Digital Manifold Gauge Set, IoT-Based Electronic Leak Detector / Refrigerant Leak Detector, Refrigerant Gas Cylinder (R-32 / R-290 / R-600a / R-134a etc.), Flaring and Swaging Tool Kit, Clamp Meter, Digital Multimeter, Insulation Tester (Megger), Power Quality Analyzer, Pipe Cutter (if included), PVC Tape, Cable Tie Pack, Brush, Hammer, Open Spanner Set, Adjustable Wrench.	

Module 7: Install and repair TV

Mapped to ELE/N3168 & V2.0

Terminal Outcomes:

- Perform steps to install a TV.
- Perform steps to troubleshoot and repair a TV.

Duration: 30:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the different types and specifications of TVs (LED, LCD, Smart TV) and their connectivity features. • Describe the safety procedures and use of PPE while handling tools, equipment, and electrical components during installation and repair. • Explain the standard operating procedures (SOPs) for unpacking, inspecting, and verifying product details before installation. • Describe methods of identifying suitable installation locations based on customer requirements. • Explain the steps for table-top and wall-mounted TV installations as per manufacturer guidelines. • Discuss how to connect input and output devices (antenna, HDMI, USB, Wi-Fi, etc.) and configure basic TV settings. • Explain customer guidance procedures related to usage, daily care, and safety precautions. • Describe common faults in TVs, their symptoms, and methods of fault diagnosis using appropriate testing tools. • Explain the process of dismantling, repairing, and replacing components as per standard safety and manufacturer procedures • Describe documentation, waste disposal, and payment processes after installation or repair. 	<ul style="list-style-type: none"> • Identify the TV type, specifications, and connectivity options before starting work. • Gather and inspect the required tools, equipment, and accessories for installation and repair. • Perform TV installation on table-top or wall mounts following standard procedures. • Connect power cables, antenna/satellite inputs, and set up HDMI or Wi-Fi connections. • Configure and demonstrate TV functions such as channel tuning, USB playback, and wireless connectivity. • Diagnose TV faults through physical inspection and basic tests (power supply, remote, etc.). • Use updated diagnostic tools (multimeter, LCR meter, signal tester) to identify defective components. • Dismantle and replace faulty components as per manufacturer guidelines and reassemble the TV safely. • Test and verify complete functionality after repair or reinstallation. • Dispose of packaging and repair waste as per company norms and complete service documentation and acknowledgment.

Classroom Aids:

Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers

Tools, Equipment and Other Requirements

IoT-Based HDMI / Signal Analyzer, Digital Wall Mount Alignment Laser & Stud Finder Tool, Signal Generator (Pattern Generator), LCR Meter, Digital Multimeter, Clamp Meter, Screwdriver Set (Combination / Multitech), Line Tester, Soldering Iron with Stand, Desoldering Pump / Wick, Wire Cutter & Crimping Tool, Cable Stripper, Blower / Vacuum Cleaner (2-in-1), Heat Gun, Spirit Level & Measuring Tape, Display TV (LED / OLED / QLED type), PVC Tape, Cable Tie Pack, Laptop / PC for Diagnostics Software.

Module 8: Install and repair Microwave

Mapped to ELE/N3167 & V2.0

Terminal Outcomes:

- Perform steps to install a microwave.
- Perform steps to troubleshoot and repair a microwave.

Duration: 30:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the working principle and construction of microwave ovens. • Describe recent advancements in microwave technology such as inverter-based heating, convection modes, and smart digital control systems. • Explain the installation requirements including power outlet positioning, ventilation space, and surface level considerations. • Identify tools, equipment, and accessories required for installation and repair work. • Describe the safety standards and correct use of PPE while handling electrical and electronic appliances. • Explain standard operating procedures (SOPs) for unpacking, inspection, and installation as per the manufacturer manual. • Describe the functions and operation of microwave features such as sensor cooking, auto menu, and digital touch control. • Explain common microwave faults and troubleshooting methods for components such as magnetron, PCB, inverter unit, and sensors. • Describe procedures for component testing, dismantling, and replacement as per safety and manufacturer guidelines. • Explain documentation, waste disposal, and payment procedures after installation or repair. 	<ul style="list-style-type: none"> • Identify the type, specifications, and advanced features of the microwave before starting work. • Collect and check all tools and equipment required for installation or repair. • Perform microwave installation, ensuring correct placement, ventilation clearance, and electrical connection. • Test and demonstrate microwave operations, including various cooking and safety modes, to the customer. • Guide customers on daily usage, care, and safety precautions. • Conduct inspection and diagnostic tests to identify faults in components such as magnetron, inverter, or sensors. • Use appropriate testing tools and follow SOPs to repair or replace defective parts. • Reassemble, connect, and verify the proper functioning of the microwave after repair. • Dispose of packaging and repair waste safely following company norms. • Complete service documentation, take acknowledgment from the customer, and maintain proper work records.

Classroom Aids:

Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers

Tools, Equipment and Other Requirements

Microwave, Screwdriver Set (Combination / Multitech), Line Tester, Digital Multimeter, Clamp Meter, LCR Meter, Signal Generator (if needed for display board), Soldering Iron with Stand, Desoldering Pump / Wick, Combination Plier, Nose Plier, Cutting Plier / Wire Stripper, Heat Gun, Blower / Vacuum Cleaner (2-in-1), Adjustable Wrench, Open Spanner Set, Microwave Oven (Convection Type), PVC Tape, Cable Tie Pack, First Aid Kit & Fire Extinguisher.

Module 9: Install and repair water purifier

Mapped to ELE/N3166 & V2.0

Terminal Outcomes:

- Perform steps to install a water purifier.
- Perform steps to troubleshoot and repair a water purifier.

Duration: 30:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the working principles and key features of different types of water purifiers such as RO, UV, UF, alkaline, and IoT-based smart purifiers. • Describe the standard installation requirements including water supply, drainage, power outlet, and wall-mounting arrangements. • Identify and explain the function of essential components like pump, SMPS, solenoid valve, UV chamber, RO membrane, sensors, and control panel. • Explain the use of tools, equipment, and accessories required for installation and repair. • Describe the safety measures and correct use of PPE during handling, installation, and servicing. • Explain standard operating procedures (SOPs) for installation, inspection, testing, and leak checking as per manufacturer guidelines. • Describe the process for setting purification levels, TDS control, and smart connectivity features. • Explain troubleshooting methods and fault diagnosis techniques for various components of a water purifier. • Discuss the procedures for cleaning, filter replacement, and preventive maintenance. • Explain proper documentation, waste disposal, and customer acknowledgment processes after completion of work. 	<ul style="list-style-type: none"> • Identify the type and model of the water purifier and review installation requirements as per the manufacturer manual. • Gather and check all tools, accessories, and materials required for installation or repair. • Perform wall-mounting, plumbing, and electrical connections following the manufacturer's SOPs. • Connect the inlet and drain pipes, power cord, and start the purifier safely. • Check for water leaks, fill the tank, and verify flow rate and TDS settings. • Demonstrate purification features, smart connectivity, and safety functions to the customer • Inspect and clean filters, hoses, and internal components as part of maintenance procedures. • Diagnose and repair faults in major components using appropriate testing tools. • Replace faulty parts onsite or document them for service center replacement. • Test complete functionality after repair, ensuring optimal performance and water quality. • Dispose of packaging and waste materials safely, complete service documentation, and collect customer acknowledgment.

Classroom Aids:

Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers

Tools, Equipment and Other Requirements

Water purifier, TDS Meter, Digital Thermometer / Infrared Thermometer, Screwdriver Set (Combination / Multitech), Line Tester, Combination Plier, Cutting Plier / Wire Stripper, Adjustable Wrench, Open Spanner Set, Clamp Meter, Digital Multimeter, Spirit Level & Measuring Tape, PVC Tape, Cable Tie Pack, Water Purifier Unit (RO + UV), First Aid Kit & Fire Extinguisher.

Module 10: Install and repair basic refrigerator and washing machine

Mapped to ELE/N3165 & V2.0

Terminal Outcomes:

- Perform steps to install a refrigerator and washing machine.
- Perform steps to troubleshoot and repair a refrigerator and washing machine.

Duration: 30:00	Duration: 90:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the working principles, installation requirements, and features of basic and smart models of refrigerators and washing machines. • Describe recent technological advancements such as inverter compressors, digital control systems, and energy-efficient operations. • Identify and explain the use of tools, instruments, and accessories required for installation and repair. • Describe the safety procedures and correct use of PPE while working with electrical and mechanical home appliances. • Explain the process of unpacking, inspecting, and verifying product specifications before installation. • Describe the correct placement requirements including space, power outlet, drainage, and ventilation for refrigerators and washing machines. • Explain the standard procedure for temperature and program settings in appliances with digital control or smart features. • Discuss common faults in refrigerators (e.g., gas leakage, cooling issues, compressor or PCB faults) and washing machines (e.g., motor failure, water inlet issues, PCB malfunction). • Describe fault diagnosis, repair, and replacement procedures for major components as per manufacturer's SOP. • Explain the importance of documentation, customer acknowledgment, and proper waste disposal after service or installation. 	<ul style="list-style-type: none"> • Identify the model, specifications, and installation requirements of the refrigerator and washing machine. • Gather and check the functionality of tools, instruments, and accessories before use. • Perform safe installation of refrigerators and washing machines as per manufacturer instructions. • Connect power, water inlet, and drain lines correctly and ensure all connections are leak-free and secure. • Demonstrate operating features such as temperature settings, inverter modes, wash programs, and smart connectivity to the customer. • Diagnose faults in both appliances through physical inspection, testing, and observation. • Carry out gas refilling, component replacement, and troubleshooting using appropriate diagnostic tools. • Reassemble and test the appliances after servicing to ensure all modules work as per specifications. • Guide customers on usage, routine care, and maintenance practices for better appliance performance. • Dispose of packaging and waste materials safely, complete documentation, and collect customer acknowledgment after installation or service.

Classroom Aids:

Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers

Tools, Equipment and Other Requirements

Refrigerator, Manual washing machine, Drawings/ Blueprints, Screwdriver Set (Combination / Multitech), Line Tester, Digital Multimeter, Clamp Meter, Combination Plier, Nose Plier, Cutting Plier / Wire Stripper, Adjustable Wrench, Open Spanner Set, Brush, File (Flat & Half Round), Spirit Level & Measuring Tape, Cordless Drill Machine with Bits, Blower / Vacuum Cleaner (2-in-1), PVC Tape, Cable Tie Pack, Digital Thermometer / Infrared Thermometer, Refrigerator (Direct Cool / Frost-Free), Washing Machine (Top & Front Load).

Module 11: Install and repair OLED/Monitor TV

Mapped to ELE/N3164 & V2.0

Terminal Outcomes:

- Perform steps to install a OLED TV/Monitor.
- Perform steps to troubleshoot and repair a OLED TV/Monitor.

Duration: 30:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the working principles and installation requirements of OLED, QLED, 4K/8K, and smart TV/monitor technologies. • Describe IoT connectivity features and smart functions such as AI picture enhancement, voice control, and app-based operation. • Identify various types of tools, testing instruments, and connectivity devices used for installation and repair work. • Describe safety procedures and appropriate use of PPE while handling electrical, electronic, and mechanical components of the TV. • Explain the process of unpacking, inspecting, and verifying product specifications before installation. • Describe placement requirements, including ventilation, viewing distance, wall strength, and signal strength, for safe installation. • Explain types of connections such as HDMI 2.1, optical cable, and satellite or antenna input used for linking devices. • Discuss the configuration of display settings, MENU controls, and integration with home automation or smart devices. • Describe the common faults in OLED/Monitor TVs such as power issues, display failure, network connectivity problems, or faulty PCB components. • Explain troubleshooting techniques including use of built-in diagnostic tools, software testing, and inspection of internal modules. • Discuss standard procedures for documentation, digital job card creation, and proper waste disposal after service. 	<ul style="list-style-type: none"> • Identify the model, make, and specifications of OLED/Monitor TV to plan installation or repair work. • Collect and check all required tools, testing devices, and accessories for proper functioning. • Follow safety standards and use PPE appropriately during handling and installation activities. • Install the OLED/Monitor TV on a wall or table as per manufacturer's guidelines and customer requirements. • Connect the TV with required input/output devices such as antenna, set-top box, soundbar, or PC using the correct ports and cables. • Set up the TV menu, configure picture and sound settings, and connect to Wi-Fi or IoT devices as per customer preference. • Demonstrate features like AI picture enhancement, voice control, and smart app navigation to the customer. • Diagnose hardware or software faults using diagnostic tools and service applications. • Dismantle and inspect components like T-CON board, power supply module, and main PCB to identify defects. • Replace faulty parts, reassemble the TV, and perform functional checks for display, audio, and connectivity. • Prepare a digital job card and coordinate with the authorized service center if onsite repair is not possible. • Guide the customer on care, cleaning, and safe handling of OLED/Monitor TV. • Dispose of packaging and repair waste properly and complete service documentation with customer acknowledgment.

Classroom Aids:

Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers

Tools, Equipment and Other Requirements

OLED TV/Monitor, IoT-Based HDMI / Signal Analyzer, Digital Wall Mount Alignment Laser & Stud Finder Tool, Screwdriver Set (Combination / Multitech), Line Tester, Digital Multimeter, Clamp Meter, Signal Generator (Pattern Generator), LCR Meter, Blower / Vacuum Cleaner (2-in-1), Heat Gun, Soldering Iron with Stand, Desoldering Pump / Wick, Wire Cutter & Crimping Tool, Cable Stripper, Spirit Level & Measuring Tape, Display TV (LED / OLED / QLED type), Laptop / PC for Diagnostics Software, PVC Tape, Cable Tie Pack, Test Lamp Assembly (AC/DC).

Module 12: Introduction to Employability Skills

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Discuss about Employability Skills in meeting the job requirements

Duration: <0.5:00>	Duration: <1:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Discuss the importance of Employability Skills in meeting the job requirements 	<ul style="list-style-type: none"> List different learning and employability related GOI and private portals and their usage
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 13: Constitutional values - Citizenship

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Discuss about constitutional values to be followed to become a responsible citizen

Duration: <0.5:00>	Duration: <1:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. 	<ul style="list-style-type: none"> Show how to practice different environmentally sustainable practices
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 14: Becoming a Professional in the 21st Century

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Demonstrate professional skills required in 21st century

Duration: <1:00>	Duration: <1.5:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss 21st century skills. • Describe the benefits of continuous learning 	<ul style="list-style-type: none"> • Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 15: Basic English Skills

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Practice basic English speaking.

Duration: <4:00>	Duration: <6:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe basic communication skills • Discuss ways to read and interpret text written in basic English 	<ul style="list-style-type: none"> • Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone • Read and interpret text written in basic English • Write a short note/paragraph / letter/e-mail using basic English
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 16: Career Development & Goal Setting

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Demonstrate Career Development & Goal Setting skills.

Duration: <1:00>	Duration: <1:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss need of career development plan 	<ul style="list-style-type: none"> • Demonstrate how to communicate in a well -mannered way with others. • Create a career development plan with well-defined short- and long-term goals
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 17: Communication Skills

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Practice basic communication skills.

Duration: <2:00>	Duration: <3:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the importance of active listening for effective communication • Discuss the significance of working collaboratively with others in a team 	<ul style="list-style-type: none"> • Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 18: Diversity & Inclusion

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Describe PwD and gender sensitisation.

Duration: <1:00>	Duration: <1.5:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Discuss the significance of reporting sexual harassment issues in time 	<ul style="list-style-type: none"> Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 19: Financial and Legal Literacy

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Describe ways of managing expenses, income, and savings.

Duration: <2:00>	Duration: <3:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> List the common components of salary and compute income, expenditure, taxes, investments etc. Discuss the legal rights, laws, and aids 	<ul style="list-style-type: none"> Outline the importance of selecting the right financial institution, product, and service Demonstrate how to carry out offline and online financial transactions, safely and securely
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 20: Essential Digital Skills

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Demonstrate procedure of operating digital devices and associated applications safely.

Duration: <4:00>	Duration: <6:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the role of digital technology in today's life • Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely 	<ul style="list-style-type: none"> • Show how to operate digital devices and use the associated applications and features, safely and securely • Create sample word documents, excel sheets and presentations using basic features • Utilize virtual collaboration tools to work effectively
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 21: Entrepreneurship

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Describe opportunities as an entrepreneur.

Duration: <3:00>	Duration: <4:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Explain the types of entrepreneurship and enterprises Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement 	<ul style="list-style-type: none"> Create a sample business plan, for the selected business opportunity
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 22: Customer Service

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Describe ways of maintaining customer.

Duration: <2:00>	Duration: <3:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Explain the significance of identifying customer needs and addressing them. Explain the significance of identifying customer needs and responding to them in a professional manner. Discuss the significance of maintaining hygiene and dressing appropriately. 	<ul style="list-style-type: none"> Demonstrate how to maintain hygiene and dressing appropriately.
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Module 23: Getting ready for apprenticeship & Jobs

Mapped to DGT/VSQ/N0102 & V1.0

Terminal Outcomes:

- Describe ways of preparing for apprenticeship & Jobs appropriately.

Duration: <3:00>	Duration: <5:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Discuss the significance of maintaining hygiene and confidence during an interview List the steps for searching and registering for apprenticeship opportunities 	<ul style="list-style-type: none"> Create a professional Curriculum Vitae (CV) Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively Perform a mock interview
Classroom Aids:	
Whiteboard, marker pen, projector	
Tools, Equipment and Other Requirements	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma/ ITI/ Certified in relevant CITS course	Electronics	3	Consumer durables assembly and repair	1	Trainer	

Trainer Certification	
Domain Certification	Platform Certification
“Multi Skill Technician - Consumer Durables, ELE/Q3118, version 2.0”. Minimum accepted score is 80%.	“Trainer, MEP/Q2601, version 2.0” Minimum accepted score is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma/ ITI/ Certified in relevant CITS course	Electronics	3	Consumer durables assembly and repair	2	Assessor	

Assessor Certification	
Domain Certification	Platform Certification
“Multi Skill Technician - Consumer Durables, ELE/Q3118, version 2.0”. Minimum accepted score is 80%.	“Assessor, MEP/Q2701, version 2.0” Minimum accepted score is 80%.

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
 - Assessment agency deploys the ToA certified Assessor for executing the assessment
 - SSC monitors the assessment process & records
2. Testing Environment:
 - 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 as 10 a.m. and 5 p.m.
 - If the batch size is more than 30, then there should be 2 Assessors.
 - 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
 - Assessor must be ToA certified & trainer must be ToT Certified
 - 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:
 - Surprise visit to the assessment location
 - Random audit of the batch
 - Random audit of any candidate
6. Method for assessment documentation, archiving, and access
 - 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 in the Hard Drives

References

Glossary

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

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

Acronyms and Abbreviations

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
IPR	Intellectual Property Rights