



# Model Curriculum

**QP Name: Multi Skill Technician - Consumer Durables**

**QP Code: ELE/Q3118**

**QP Version: 1.0**

**NSQF Level: 4**

**Model Curriculum Version: 1.0**

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

# Table of Contents

Training Parameters.....	4
Program Overview .....	5
Training Outcomes.....	5
Elective Modules.....	5
Module Details.....	8
Module 1: Introduction the role of Multi skill Technician - Consumer Durables.....	8
Module 2: Installation and repair of refrigerator (DIOS).....	9
Module 3: Installation and repair of washing machine .....	11
Module 4: Installation and repair of dish washer .....	13
Module 5: Installation and repair of Air Conditioner.....	15
Module 6: Gas charging in refrigerator and air conditioner .....	17
Module 7: Installation and repair TV .....	18
Module 8: Installation and repair of microwave.....	20
Module 9: Installation and repair of water purifier .....	22
Module 10: Installation and repair of basic refrigerator and washing machine.....	24
Module 11: Installation and repair of basic OLED TV/monitor .....	26
Module 12: Introduction to Employability Skills.....	28
Module 13: Constitutional values - Citizenship .....	29
Module 14: Becoming a Professional in the 21st Century.....	30
Module 15: Basic English Skills.....	31
Module 16: Career Development & Goal Setting .....	32
Module 17: Communication Skills .....	33
Module 18: Diversity & Inclusion.....	34
Module 19: Financial and Legal Literacy.....	35
Module 20: Essential Digital Skills.....	36
Module 21: Entrepreneurship .....	37
Module 22: Customer Service.....	38
Module 23: Getting ready for apprenticeship & Jobs.....	39
Annexure .....	40
Trainer Requirements .....	40
Assessor Requirements.....	41
Assessment Strategy.....	42



References .....	43
Glossary.....	43
Acronyms and Abbreviations .....	45

# Training Parameters

<b>Sector</b>	Electronics
<b>Sub-Sector</b>	Consumer Electronics and IT Hardware
<b>Occupation</b>	After Sales Service
<b>Country</b>	India
<b>NSQF Level</b>	4
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/7421.0701
<b>Minimum Educational Qualification and Experience</b>	8th grade pass + NTC (2 years after 8th) with 2 years of NAC/relevant experience OR 10th grade pass with 2 years NTC/NAC/relevant experience OR 12th grade pass OR Certificate (NSQF Level-3 in the Electrical Technician) with 2 years of relevant experience
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	17/11/2022
<b>Next Review Date</b>	17/11/2025
<b>NSQC Approval Date</b>	17/11/2022
<b>QP Version</b>	1.0
<b>Model Curriculum Creation Date</b>	17/11/2022
<b>Model Curriculum Valid Up to Date</b>	17/11/2025
<b>Model Curriculum Version</b>	1.0
<b>Minimum Duration of the Course</b>	660 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.

#### 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
<b>ELE/N3169 - Installation and repair of Refrigerator (DIOS)</b> NOS Version No. 1.0 NSQF Level 4	45:00	50:00	25:00	-	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)	40:00	50:00	25:00	-	115:00
<b>ELE/N3170 - Installation and repair of Washing machine</b> NOS Version No. 1.0 NSQF Level 4	45:00	50:00	25:00	-	120:00
Module 3: Install and repair washing machine	45:00	50:00	25:00	-	120:00
<b>ELE/N3163 - Installation and repair of Dish Washer</b> NOS Version No. 1.0 NSQF Level 4	45:00	50:00	25:00	-	120:00
Module 4: Install and repair dish washer	45:00	50:00	25:00	-	120:00

<b>ELE/N3162 - Installation and repair of Air Conditioner NOS Version No. 1.0 NSQF Level 4</b>	<b>45:00</b>	<b>80:00</b>	<b>25:00</b>	-	<b>150:00</b>
Module 5: Install and repair air conditioner	45:00	80:00	25:00	-	150:00
<b>ELE/N3161 - Gas Charging in the refrigerator and AC NOS Version No. 1.0 NSQF Level 4</b>	<b>30:00</b>	<b>40:00</b>	<b>20:00</b>	-	<b>90:00</b>
Module 6: Perform gas charging in refrigerator and AC	30:00	40:00	20:00	-	90:00
<b>Total Duration</b>	<b>210:00</b>	<b>270:00</b>	<b>120:00</b>	-	<b>600:00</b>

## Elective 2

<b>NOS and Module Details</b>	<b>Theory Duration</b>	<b>Practical Duration</b>	<b>On-the-Job Training Duration (Mandatory)</b>	<b>On-the-Job Training Duration (Recommended)</b>	<b>Total Duration</b>
<b>ELE/N3168 - Installation and repair of TV NOS Version No. 1.0 NSQF Level 4</b>	<b>45:00</b>	<b>50:00</b>	<b>25:00</b>		<b>120:00</b>
Module 7: Install and repair TV	45:00	50:00	25:00		115:00
<b>ELE/N3167 - Installation and repair of microwave NOS Version No. 1.0 NSQF Level 4</b>	<b>45:00</b>	<b>50:00</b>	<b>25:00</b>		<b>120:00</b>
Module 8: Install and repair microwave	45:00	50:00	25:00		120:00
<b>ELE/3166 - Installation and repair of water purifier NOS Version No. 1.0 NSQF Level 4</b>	<b>45:00</b>	<b>50:00</b>	<b>25:00</b>		<b>120:00</b>
Module 9: Install and repair water purifier	45:00	50:00	25:00		120:00
<b>ELE/N3165 - Installation and repair of basic refrigerator and washing machine NOS Version No. 1.0 NSQF Level 4</b>	<b>45:00</b>	<b>80:00</b>	<b>25:00</b>		<b>150:00</b>
Module 10: Install and repair refrigerator and washing machine	45:00	80:00	25:00		150:00
<b>ELE/N3164 - Installation and repair of OLED TV/ Monitor NOS Version No. 1.0 NSQF Level 4</b>	<b>30:00</b>	<b>40:00</b>	<b>20:00</b>		<b>90:00</b>
Module 11: Install and repair OLED TV/monitor	30:00	40:00	20:00		90:00
<b>Total Duration</b>	<b>210:00</b>	<b>270:00</b>	<b>120:00</b>		<b>600:00</b>

## 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
<b>DGT/VSQ/N0102 - Employability Skills (60 hours)</b> NOS Version No. – 1.0 NSQF Level – 5	<b>24:00</b>	<b>36:00</b>	-	-	<b>60:00</b>
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
<b>Total Duration</b>	<b>24:00</b>	<b>36:00</b>	-	-	<b>60:00</b>

## Module Details

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

*Mapped to ELE/Q3118, v1.0*

#### Terminal Outcomes:

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

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



## Module 2: Install and repair Refrigerator (DIOS)

*Mapped to ELE/N3169, v1.0*

### Terminal Outcomes:

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

<b>Duration: 40:00</b>	<b>Duration: 50:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of Refrigerator (DIOS) at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• Describe functioning of various electromechanical parts of the refrigerator</li> <li>• Describe various functions and features of refrigerator (DIOS) on various temperature settings.</li> <li>• Describe method of refrigeration, its use and functioning of refrigerator sealed system.</li> <li>• Describe refrigeration cycle and functioning of the appliance and its various modules.</li> <li>• Describe different types of refrigerants such as R12, R22, R134a, R290, R600a, R410, R32 and their application.</li> <li>• List all the supporting accessories available with the Refrigerator (DIOS).</li> <li>• Discuss the space requirements for placing the Refrigerator (DIOS).</li> <li>• List the basic requirements like availability of power point, surface level, distance from wall etc. for installing the Refrigerator (DIOS) at customer site.</li> <li>• Discuss the effects of exposing the rear of the appliance and placing the appliance in a damp and dusty place.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the refrigerator (DIOS) packaging and check the product specifications with the billing invoice.</li> <li>• Apply appropriate ways to place the appliance on a firm and level floor and fix all the accessories and parts as per SOP.</li> <li>• Demonstrate the organisational procedure of connecting the refrigerator to the power point and setting temperature parameters.</li> <li>• Demonstrate the various functions and features of refrigerator (DIOS) on various temperature settings and use of control panel.</li> <li>• Show how to check that outlet socket is properly grounded, and earth pin on the power cord is not damaged or removed from the power plug.</li> <li>• Demonstrate the organisational procedure of installing the smart feature application of refrigerator (DIOS) in customer’s smartphone and connecting the refrigerator with customer’s smartphone.</li> <li>• Show how to operate and monitor the functioning of refrigerator through application.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the refrigerator (DIOS).</li> <li>• Demonstrate use of smart feature app to diagnose the issues in the refrigerator (DIOS).</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of refrigerator (DIOS).</li> </ul>

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Discuss the need of proper grounding of outlet socket and no damage of earth pin on the power cord.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the refrigerator (DIOS).</li> <li>• Discuss the problems/unusual conditions generally occurred in a refrigerator (DIOS).</li> <li>• List the steps to be performed for troubleshooting and repairing of refrigerator (DIOS).</li> <li>• Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul> | <ul style="list-style-type: none"> <li>• Show how to refill the refrigerant gas in refrigerator (DIOS).</li> <li>• Apply appropriate ways to troubleshoot refrigerator (DIOS) to identify the faults and faulty component.</li> <li>• Apply appropriate ways to repair or replace the faulty components from refrigerator (DIOS).</li> <li>• Dramatize a situation to send the repairing or replacement requirement to service center and repair the faulty component on second visit.</li> <li>• Apply appropriate ways to check the refrigerator (DIOS) for proper functionality after service and repair work.</li> <li>• Show how to clear up the packaging material waste and dispose as per company's norms</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation</li> </ul> |
|--|--|

**Classroom Aids:**

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

**Tools, Equipment and Other Requirements**

Refrigerator (DIOS), Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, Sprit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, different types of refrigerants, PPE, Sample documents

## Module 3: Install and repair washing machine

*Mapped to ELE/N3170, v1.0*

### Terminal Outcomes:

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

<b>Duration: 45:00</b>	<b>Duration: 50:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of washing machine at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• Describe functioning of different types of washing machine.</li> <li>• Describe functioning of various parts of the washing machine.</li> <li>• Describe various functions and features of washing machine on different settings.</li> <li>• Describe various cleaning cycle of washing machine.</li> <li>• List all the supporting accessories available with the washing machine (automatic and semi-automatic).</li> <li>• Discuss the space requirements for placing the washing machine.</li> <li>• List the basic requirements like availability of power outlet, surface level, water supply etc. for installing the washing machine at customer site.</li> <li>• Discuss the need of placing washing machine against an exterior wall to the drain hose running along the inside wall.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the washing machine.</li> <li>• Discuss the problems/unusual conditions generally occurred in a washing machine.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the washing machine packaging and check the product specifications with the billing invoice.</li> <li>• Apply appropriate ways to place the washing machine on a firm and level floor and fix all the accessories and parts as per SOP.</li> <li>• Demonstrate the organisational procedure of connecting the water hose and drain pipe with the washing machine and water supply tap.</li> <li>• Show how to remove all transport pins inside the drum of the washing machine before starting the machine.</li> <li>• Show how to plug the power cord in the power outlet, start the washing machine and open the water supply valve.</li> <li>• Show how to operate and monitor the functioning of washing machine.</li> <li>• Apply appropriate ways to check that there are no leaks and the machine is in a safe and stable condition.</li> <li>• Demonstrate the features, functioning and use of control panel of washing machine for various washing operations.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the washing machine.</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of washing machine.</li> <li>• Apply appropriate ways to troubleshoot washing machine to identify the faults and faulty component.</li> </ul>

<ul style="list-style-type: none"> <li>• List the steps to be performed for troubleshooting and repairing of washing machine.</li> <li>• Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul>	<ul style="list-style-type: none"> <li>• Show how to identify the cycle (fill/wash and rinse/spin and drain) during which the problem occurs.</li> <li>• Apply appropriate ways to inspect basic parts such as valve strainers, fill hose, drain line, pressure tube, water valves, pressure sensor, motors, transformer, pulley and belt system, motor starting switch, solenoid, clutch lining etc. of washing machine.</li> <li>• Apply appropriate ways to repair or replace the faulty components from washing machine.</li> <li>• Dramatize a situation to send the repairing or replacement requirement to service center and repair the faulty component on second visit.</li> <li>• Apply appropriate ways to check the washing machine for proper functionality after service and repair work.</li> <li>• Show how to clear up the packaging material waste and dispose as per company's norms</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation</li> </ul>
<p><b>Classroom Aids:</b></p>	
<p>Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers</p>	
<p><b>Tools, Equipment and Other Requirements</b></p>	
<p>Washing machine (Automatic and semi-automatic), Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, Spirit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, PPE, Sample documents</p>	

## Module 4: Install and repair dish washer

*Mapped to ELE/N3163, v1.0*

### Terminal Outcomes:

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

<b>Duration: 45:00</b>	<b>Duration: 50:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of dish washer at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• Describe functioning of different types of dish washer.</li> <li>• Describe functioning of various parts of the dish washer.</li> <li>• Describe various functions and features of dish washer on different settings.</li> <li>• Describe various cleaning cycle of dish washer.</li> <li>• List all the supporting accessories available with the dish washer.</li> <li>• Discuss the space and location requirements for placing the dish washer.</li> <li>• List the basic requirements like availability of power outlet, surface level, clearance with wall or cabinet etc. for installing the dish washer at customer site.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the dish washer.</li> <li>• Discuss the problems/unusual conditions generally occurred in a dish washer.</li> <li>• List the steps to be performed for troubleshooting and repairing of dish washer.</li> <li>• Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the dish washer packaging and check the product specifications with the billing invoice.</li> <li>• Apply appropriate ways to make cuts for hoses and electric cables in the shelf.</li> <li>• Apply appropriate ways to place the dish washer properly at levelled surface and install moisture barrier, water supply hose, drain hose, other parts and accessories as per SOP.</li> <li>• Show how to plug the power cord in the power outlet, start the dish washer and open the water supply valve.</li> <li>• Show how to operate and monitor the functioning of dish washer.</li> <li>• Apply appropriate ways to check that there are no leaks and the machine is in a safe and stable condition.</li> <li>• Demonstrate the various functions and features of dish washer on various settings and use of control panel.</li> <li>• Demonstrate the features, functioning and use of control panel of dish washer for various washing operations.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the dish washer.</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of dish washer.</li> <li>• Apply appropriate ways to troubleshoot dish washer to identify the faults and faulty component.</li> </ul>

	<ul style="list-style-type: none"> <li>• Apply appropriate ways to inspect basic parts of dish washer.</li> <li>• Apply appropriate ways to repair or replace the faulty components from dish washer.</li> <li>• Dramatize a situation to send the repairing or replacement requirement to service center and repair the faulty component on second visit.</li> <li>• Apply appropriate ways to check the dish washer for proper functionality after service and repair work.</li> <li>• Show how to clear up the packaging material waste and dispose as per company's norms</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation</li> </ul>
<p><b>Classroom Aids:</b></p>	
<p>Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers</p>	
<p><b>Tools, Equipment and Other Requirements</b></p>	
<p>Dish washer, Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, Sprit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, PPE, Sample documents</p>	

## Module 5: Install and repair Air Conditioner (AC)

*Mapped to ELE/N3162, v1.0*

### Terminal Outcomes:

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

<b>Duration: 45:00</b>	<b>Duration: 80:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of an AC at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• List different types of air conditioners.</li> <li>• Describe functioning of various parts of the AC.</li> <li>• Describe various functions and features of an AC on various temperature settings.</li> <li>• Describe method of cooling, its use and functioning of AC.</li> <li>• Describe different types of refrigerants and their application.</li> <li>• List all the supporting accessories available with the AC.</li> <li>• List the steps to be performed for installing a window AC.</li> <li>• Discuss the structural requirements such as distance from power supply, distance from windows/doors required for installing the AC.</li> <li>• List the steps to be performed for installing a split AC.</li> <li>• Discuss the pre installations/masonry/electrical work to be carried out and requirement of concealed drainage and electric conduits for a split AC.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the AC.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the AC packaging and check the product specifications with the billing invoice.</li> <li>• Demonstrate organisational procedure of installing a window AC.</li> <li>• Apply appropriate ways to measure the space for installation to assure a good fit.</li> <li>• Show how to install the circuit breaker switch (if not available) and fix all the parts and components of window AC properly.</li> <li>• Apply appropriate ways to install the AC unit in the window as per SOP.</li> <li>• Show how to connect the power cord with the circuit breaker switch, start the AC and check the functioning of AC by using remote</li> <li>• Demonstrate organisational procedure of installing a split AC.</li> <li>• Show how to install and mount the indoor and outdoor unit at a suitable location and attach it firmly to wall/floor.</li> <li>• Show how to connect the indoor and the outdoor units using the field copper pipe of appropriate size and interconnecting cables.</li> <li>• Show how to fill the air conditioning gas if required.</li> <li>• Demonstrate the various functions and features of AC on various temperature settings and use of control panel.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the AC.</li> </ul>

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Discuss the problems/unusual conditions generally occurred in AC.</li> <li>• List the steps to be performed for troubleshooting and repairing of AC.</li> <li>• Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of AC.</li> <li>• Show how to check the AC for servicing requirements and clean the air conditioner filter, indoor and outdoor unit, drain hose etc. as per the SOP.</li> <li>• Show how to refill the gas in AC.</li> <li>• Apply appropriate ways to troubleshoot AC to identify the faults and faulty component.</li> <li>• Apply appropriate ways to repair or replace the faulty components from AC.</li> <li>• Dramatize a situation to send the repairing or replacement requirement to service center and repair the faulty component on second visit.</li> <li>• Apply appropriate ways to check the AC for proper functionality after service and repair work.</li> <li>• Show how to clear up the packaging material waste and dispose as per company's norms</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation</li> </ul> |
|--|--|

**Classroom Aids:**

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

**Tools, Equipment and Other Requirements**

AC (split and window) Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, Spirit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, different types of refrigerants, PPE, Sample documents



## Module 6: Perform gas charging in refrigerator and AC

*Mapped to ELE/N3161, v1.0*

### Terminal Outcomes:

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

<b>Duration: 30:00</b>	<b>Duration: 40:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the information required for gas charging work in a refrigerator and AC.</li> <li>• List tools and equipment required during work.</li> <li>• Describe selection criteria of gas.</li> <li>• List the steps to be performed for filling the gas in AC and refrigerator.</li> <li>• Describe refrigeration cycle and functioning of the appliance and its various modules.</li> <li>• Describe method of refrigeration, its use and functioning of refrigerator sealed system</li> <li>• List types of refrigerants such as R12, R22, R134a, R290, R600a, R410, R32 use of different brazing sticks, types of brazing torches and their application.</li> </ul>	<ul style="list-style-type: none"> <li>• Show how to select and arrange the appropriate type of gas cylinder and connecting hoses required for filling the equipment on the basis of type and model of equipment.</li> <li>• Show how to connect a pressure gauge to the gas inlet of AC and refrigerator and check the pressures against the ambient temperature, if gas pressure is below the manufacturer recommended gas pressure, then there is need to fill the gas.</li> <li>• Show how to connect the gas cylinder hose to the gas inlet of AC and refrigerator and start filling the gas.</li> <li>• Show how to connect the equipment pipes with the gas inlet and tighten it properly.</li> <li>• Apply appropriate ways to check that there is no leakage of gas at the gas inlet.</li> <li>• Show how to start and check the cooling of equipment.</li> <li>• Apply appropriate ways to check the AC for after servicing work.</li> <li>• Show how to clear up the waste and dispose as per company's norms</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation.</li> </ul>
<b>Classroom Aids:</b>	
Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers	
<b>Tools, Equipment and Other Requirements</b>	
AC (split and window), Refrigerator, Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, gas for refrigerator and AC, PPE, pressure gauge	

## Module 7: Install and repair TV

*Mapped to ELE/N3168, v1.0*

### Terminal Outcomes:

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

<b>Duration: 45:00</b>	<b>Duration: 50:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of TV at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• Describe functioning of different types of TV.</li> <li>• Describe functioning of various parts of the TV.</li> <li>• Describe various functions and features of TV on different settings.</li> <li>• List all the supporting accessories available with the TV.</li> <li>• Discuss the space and location requirements for placing the TV.</li> <li>• List the basic requirements like availability of power outlet, surface level etc. for installing the TV at customer site.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the TV.</li> <li>• Discuss the problems/unusual conditions generally occurred in a TV.</li> <li>• List the steps to be performed for troubleshooting and repairing of TV.</li> <li>• Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the TV packaging and check the product specifications with the billing invoice.</li> <li>• Apply appropriate ways to place the TV properly on table and install other parts and accessories as per SOP.</li> <li>• Demonstrate organisational procedure of mounting the TV on wall as per SOP.</li> <li>• Show how to plug the power cord in the power outlet, start the TV.</li> <li>• Show how to connect the TV to a wall antenna socket or a satellite dish socket as per the instructions.</li> <li>• Show how to turn on the TV and adjust the MENU settings as per customer requirements and instructions.</li> <li>• Demonstrate the functions of TV such as use of USB, HDMI cable, wireless connectivity etc.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the TV.</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of TV.</li> <li>• Apply appropriate ways to troubleshoot TV to identify the faults and faulty component.</li> <li>• Apply appropriate ways to inspect basic parts of TV.</li> <li>• Apply appropriate ways to repair or replace the faulty components from TV.</li> <li>• Dramatize a situation to send the repairing or replacement requirement to service</li> </ul>

	<p>center and repair the faulty component on second visit.</p> <ul style="list-style-type: none"> <li>• Apply appropriate ways to check the TV for proper functionality after service and repair work.</li> <li>• Show how to clear up the packaging material waste and dispose as per company's norms</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation</li> </ul>
<p><b>Classroom Aids:</b></p>	
<p>Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers</p>	
<p><b>Tools, Equipment and Other Requirements</b></p>	
<p>TV, Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, Sprit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, PPE, Sample documents</p>	

## Module 8: Install and repair Microwave

*Mapped to ELE/N3167, v1.0*

### Terminal Outcomes:

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

<b>Duration: 45:00</b>	<b>Duration: 50:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of microwave at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• Describe functioning of different types of microwave.</li> <li>• Describe functioning of various parts of the microwave.</li> <li>• Describe various functions and features of microwave on different settings.</li> <li>• List all the supporting accessories available with the microwave.</li> <li>• Discuss the space and location requirements for placing the microwave.</li> <li>• List the basic requirements like availability of power outlet, surface level etc. for installing the microwave at customer site.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the microwave.</li> <li>• Discuss the problems/unusual conditions generally occurred in a microwave.</li> <li>• List the steps to be performed for troubleshooting and repairing of microwave.</li> <li>• Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the microwave packaging and check the product specifications with the billing invoice.</li> <li>• Apply appropriate ways to place the microwave properly surface and install other parts and accessories as per SOP.</li> <li>• Show how to plug the power cord in the power outlet, start the microwave.</li> <li>• Show how to turn on the microwave and adjust the MENU settings as per customer requirements and instructions.</li> <li>• Demonstrate the various cooking functions and safety features of microwave to the customer as per the instructions.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the microwave.</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of microwave.</li> <li>• Apply appropriate ways to troubleshoot microwave to identify the faults and faulty component.</li> <li>• Apply appropriate ways to inspect basic parts of microwave.</li> <li>• Apply appropriate ways to repair or replace the faulty components from microwave.</li> <li>• Dramatize a situation to send the repairing or replacement requirement to service center and repair the faulty component on second visit.</li> </ul>

	<ul style="list-style-type: none"> <li>• Apply appropriate ways to check the microwave for proper functionality after service and repair work.</li> <li>• Show how to clear up the packaging material waste and dispose as per company's norms.</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation.</li> </ul>
<b>Classroom Aids:</b>	
Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers	
<b>Tools, Equipment and Other Requirements</b>	
Microwave, Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, Sprit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, PPE, Sample documents	

## Module 9: Install and repair water purifier

Mapped to ELE/N3166, v1.0

### Terminal Outcomes:

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

Duration: 45:00	Duration: 50:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of water purifier at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• Describe functioning of different types of water purifier.</li> <li>• Describe functioning of various parts of the water purifier.</li> <li>• Describe various functions and features of water purifier on different settings.</li> <li>• List all the supporting accessories available with the dish washer.</li> <li>• Discuss the space and location requirements for installing the water purifier.</li> <li>• List the basic requirements like availability of power outlet, surface level, water supply etc. for installing the water purifier at customer site.</li> <li>• Discuss the need of filling the purifier tank and discharging some water for the first time.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the water purifier.</li> <li>• Discuss the problems/unusual conditions generally occurred in a water purifier.</li> <li>• List the steps to be performed for troubleshooting and repairing of water purifier.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the water purifier packaging and check the product specifications with the billing invoice.</li> <li>• Apply appropriate ways to mount the water purifier properly and install other parts and accessories as per SOP.</li> <li>• Show how to connect the water hose and drain pipe with the water purifier and water supply tap as per the instructions.</li> <li>• Show how to plug the power cord in the power outlet, start the water purifier and open the water supply valve.</li> <li>• Show how to operate and monitor the functioning of water purifier.</li> <li>• Apply appropriate ways to check that there are no leaks and the machine is in a safe and stable condition.</li> <li>• Demonstrate the features, functioning and use of control panel of water purifier.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the water purifier.</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of water purifier.</li> <li>• Show how to check the water purifier for any servicing requirements and clean its filter, drain and water hose etc. as per the SOP.</li> <li>• Apply appropriate ways to troubleshoot water purifier to identify the faults and faulty component.</li> <li>• Apply appropriate ways to inspect basic parts of water purifier.</li> </ul>

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul> | <ul style="list-style-type: none"> <li>Show how to clean or change the filter as per the requirement.</li> <li>Apply appropriate ways to repair or replace the faulty components from water purifier.</li> <li>Dramatize a situation to send the repairing or replacement requirement to service center and repair the faulty component on second visit.</li> <li>Apply appropriate ways to check the water purifier for proper functionality after service and repair work.</li> <li>Show how to clear up the packaging material waste and dispose as per company's norms</li> <li>Show how to collect the payments if the unit is not in warranty and complete the documentation</li> </ul> |
|--|---|

**Classroom Aids:**

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

**Tools, Equipment and Other Requirements**

Water purifier, Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, Sprit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, PPE, Sample documents

## Module 10: Install and repair basic refrigerator and washing machine

*Mapped to ELE/N3165, v1.0*

### Terminal Outcomes:

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

<b>Duration: 45:00</b>	<b>Duration: 80:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of water purifier at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• Describe functioning of different types of refrigerator i.e. single door or double door.</li> <li>• Describe functioning of various parts of the refrigerator.</li> <li>• Describe various functions and features of refrigerator and its components.</li> <li>• List all the supporting accessories available with the refrigerator.</li> <li>• Discuss the space and location requirements for installing the refrigerator.</li> <li>• List the basic requirements like wall, availability of power outlet, and platform height etc. for installing the refrigerator at customer site.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the refrigerator.</li> <li>• Discuss the problems/unusual conditions generally occurred in a refrigerator.</li> <li>• List the steps to be performed for troubleshooting and repairing of refrigerator.</li> <li>• Describe functioning of manual washing machine and its parts.</li> <li>• List all the supporting accessories available with the manual washing machine.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the refrigerator packaging and check the product specifications with the billing invoice.</li> <li>• Apply appropriate ways to place the refrigerator properly and install other parts and accessories as per SOP.</li> <li>• Show how to start the refrigerator, set temperature parameters and demonstrate the functions of refrigerator to the customer.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the refrigerator.</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of refrigerator.</li> <li>• Apply appropriate ways to troubleshoot refrigerator to identify the faults and faulty component.</li> <li>• Show how to refill the gas in refrigerator.</li> <li>• Apply appropriate ways to inspect basic parts of refrigerator.</li> <li>• Apply appropriate ways to repair or replace the faulty components from refrigerator.</li> <li>• Apply appropriate ways to check the refrigerator for proper functionality after service and repair work.</li> <li>• Demonstrate the steps to be performed for installing a manual washing machine.</li> <li>• Show how to remove the manual washing machine packaging and check the product specifications with the billing invoice.</li> </ul>



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Discuss the space and location requirements for installing the manual washing machine.</li> <li>• List the basic requirements like wall, availability of distance from wall, availability of power outlet etc. for installing the manual washing machine at customer site.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the manual washing machine.</li> <li>• Discuss the problems/unusual conditions generally occurred in a manual washing machine.</li> <li>• List the steps to be performed for troubleshooting and repairing of manual washing machine.</li> <li>• Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul> | <ul style="list-style-type: none"> <li>• Apply appropriate ways to place the manual washing machine properly and install other parts and accessories as per SOP.</li> <li>• Show how to connect the washing machine and start it to demonstrate the functions of washing machine and use of wash setting buttons to the customer.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the manual washing machine.</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of manual washing machine.</li> <li>• Apply appropriate ways to troubleshoot manual washing machine to identify the faults and faulty component.</li> <li>• Apply appropriate ways to inspect basic parts of manual washing machine.</li> <li>• Apply appropriate ways to repair or replace the faulty components from manual washing machine.</li> <li>• Apply appropriate ways to check the manual washing machine for proper functionality after service and repair work.</li> <li>• Show how to clear up the packaging material waste and dispose as per company's norms</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation</li> </ul> |
|--|--|

**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, Manufacturer's manual, Tools and Equipment's, Sprit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, PPE, Sample documents

## Module 11: Install and repair OLED/Monitor TV

Mapped to ELE/N3164, v1.0

### Terminal Outcomes:

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

Duration: 30:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Discuss the information and details required for the installation and repairing of OLED TV/Monitor at customer site.</li> <li>• List the tools and equipment required for installation and repairing work.</li> <li>• List PPE require during work.</li> <li>• List various types of health and safety hazards commonly present in the work environment.</li> <li>• Explain the necessary precautions need to follow during work to avoid any hazard or accident.</li> <li>• Describe functioning of OLED TV/monitor and their various parts.</li> <li>• List all the supporting accessories available with the OLED TV/Monitor.</li> <li>• Discuss the space and location requirements for placing or mounting the OLED TV/Monitor.</li> <li>• List the basic requirements like availability of power outlet, surface level etc. for installing the OLED TV/Monitor at customer site.</li> <li>• Discuss the importance of following day-to-day care activities and precautions while using the OLED TV/Monitor.</li> <li>• Discuss the problems/unusual conditions generally occurred in a OLED TV/Monitor.</li> <li>• List the steps to be performed for troubleshooting and repairing of OLED TV/Monitor.</li> <li>• Discuss the documents need to prepare and maintain related to installation and repairing work.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the use of tools and equipment required.</li> <li>• Apply appropriate ways to check the functionality of tools and equipment before use.</li> <li>• Show how to remove the OLED TV/Monitor packaging and check the product specifications with the billing invoice.</li> <li>• Apply appropriate ways to place the OLED TV/Monitor properly on table and install other parts and accessories as per SOP.</li> <li>• Demonstrate organisational procedure of mounting the OLED TV/Monitor on wall as per SOP.</li> <li>• Show how to plug the power cord in the power outlet, start the OLED TV/Monitor.</li> <li>• Show how to connect the OLED TV/Monitor to a wall antenna socket or a satellite dish socket as per the instructions.</li> <li>• Show how to turn on the TV and adjust the MENU settings as per customer requirements and instructions.</li> <li>• Demonstrate the functions of OLED TV/Monitor such as use of USB, HDMI cable, wireless connectivity etc.</li> <li>• Show how to guide the customer on day-to-day care activities and precautions while using the OLED TV/Monitor.</li> <li>• Demonstrate the organisational procedure of assembling and dismantling the components of OLED TV/Monitor.</li> <li>• Apply appropriate ways to troubleshoot OLED TV/Monitor to identify the faults and faulty component.</li> <li>• Apply appropriate ways to inspect basic parts of TV.</li> </ul>

	<ul style="list-style-type: none"> <li>• Apply appropriate ways to repair or replace the faulty components from OLED TV/Monitor.</li> <li>• Dramatize a situation to send the repairing or replacement requirement to service center and repair the faulty component on second visit.</li> <li>• Apply appropriate ways to check the OLED TV/Monitor for proper functionality after service and repair work.</li> <li>• Show how to clear up the packaging material waste and dispose as per company's norms</li> <li>• Show how to collect the payments if the unit is not in warranty and complete the documentation</li> </ul>
<b>Classroom Aids:</b>	
Whiteboard, marker pen, computer or laptop attached to LCD projector, scanner, computer speakers	
<b>Tools, Equipment and Other Requirements</b>	
OLED TV/Monitor, Drawings/ Blueprints, Manufacturer's manual, Tools and Equipment's, Sprit Level, screw drivers, spanners, wrenches, Drill Machine, Hammer, Chisel, Different types of cables, switch, socket, relay, MCB, PPE, Sample documents	

## Module 12: Introduction to Employability Skills

*Mapped to DGT/VSQ/N0102*

### Terminal Outcomes:

- Discuss about Employability Skills in meeting the job requirements

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

## Module 13: Constitutional values - Citizenship

*Mapped to DGT/VSQ/N0102*

### Terminal Outcomes:

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

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

## Module 14: Becoming a Professional in the 21st Century

### Mapped to DGT/VSQ/N0102

#### Terminal Outcomes:

- Demonstrate professional skills required in 21<sup>st</sup> century

<b>Duration:</b> <1:00>	<b>Duration:</b> <1.5:00>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss 21st century skills.</li> <li>• Describe the benefits of continuous learning</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<b>Classroom Aids:</b>	
Whiteboard, marker pen, projector	
<b>Tools, Equipment and Other Requirements</b>	

## Module 15: Basic English Skills

### Mapped to DGT/VSQ/N0102

#### Terminal Outcomes:

- Practice basic English speaking.

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

## Module 16: Career Development & Goal Setting

*Mapped to DGT/VSQ/N0102*

### Terminal Outcomes:

- Demonstrate Career Development & Goal Setting skills.

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



## Module 17: Communication Skills

### Mapped to DGT/VSQ/N0102

#### Terminal Outcomes:

- Practice basic communication skills.

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

## Module 18: Diversity & Inclusion

*Mapped to DGT/VSQ/N0102*

### Terminal Outcomes:

- Describe PwD and gender sensitisation.

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

## Module 19: Financial and Legal Literacy

*Mapped to DGT/VSQ/N0102*

### Terminal Outcomes:

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

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

## Module 20: Essential Digital Skills

### Mapped to DGT/VSQ/N0102

#### Terminal Outcomes:

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

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

## Module 21: Entrepreneurship

### Mapped to DGT/VSQ/N0102

#### Terminal Outcomes:

- Describe opportunities as an entrepreneur.

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

## Module 22: Customer Service

### Mapped to DGT/VSQ/N0102

#### Terminal Outcomes:

- Describe ways of maintaining customer.

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

## Module 23: Getting ready for apprenticeship & Jobs

*Mapped to DGT/VSQ/N0102*

### Terminal Outcomes:

- Describe ways of preparing for apprenticeship & Jobs appropriately.

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

## 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 1.0". Minimum accepted score is 80%.	"Trainer, MEP/Q2601, version 1.0" Minimum accepted score is 80%.



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 1.0”. Minimum accepted score is 80%.	“Assessor, MEP/Q2701, version 1.0” 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

Glossary

<b>Sector</b>	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.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	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.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	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.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	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.
<b>Scope</b>	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.

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