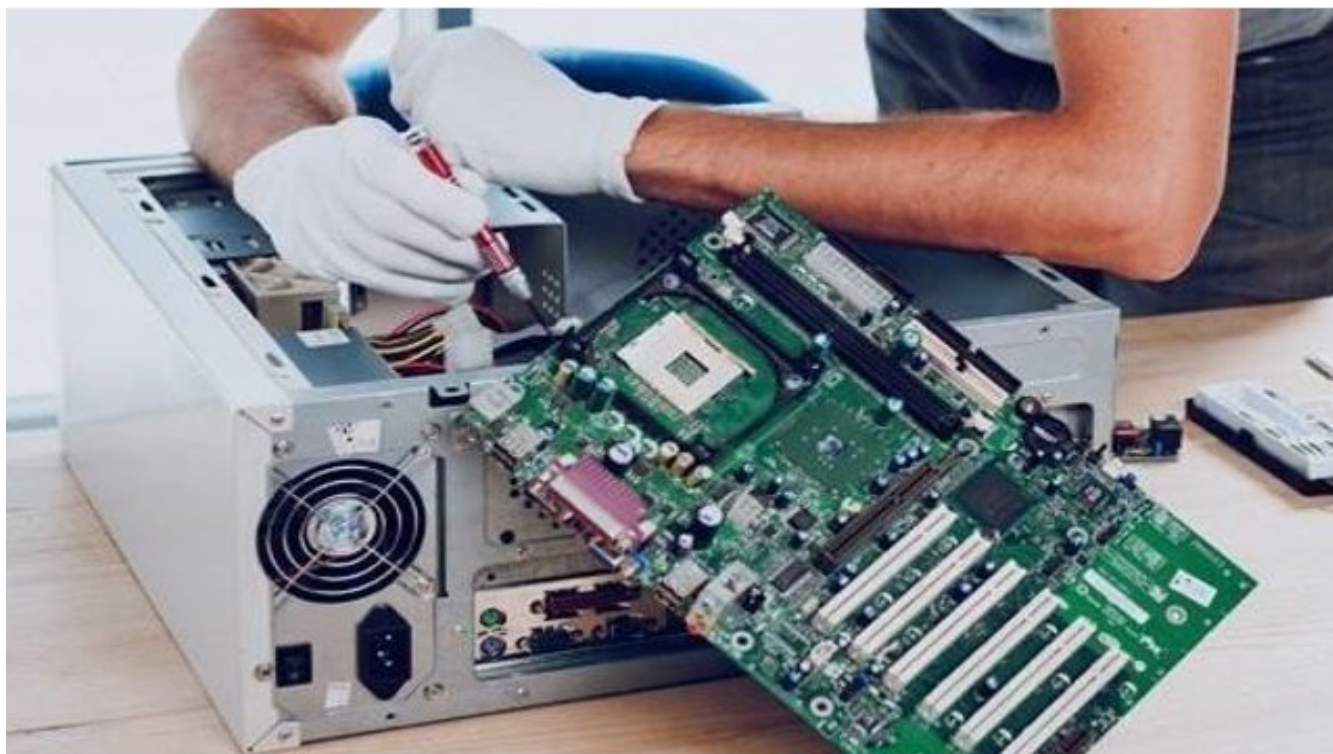




Model Curriculum

QP Name: Assistant Technician – Computer and Peripheral

QP Code: ELE/Q4609

QP Version: 5.0

NSQF Level: 3

Model Curriculum Version: 5.0

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 & IT Hardware
Occupation	Assembly - EMS
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7422.2022
Minimum Educational Qualification and Experience	10th Grade or equivalent OR 8th Grade with 3 years' relevant experience and Previous NSQF level 2.5 with 1.5 years of relevant experience in Consumer Electronics & IT Hardware domain
Pre-Requisite License or Training	NA
Minimum Job Entry Age	NA
Last Reviewed On	07/10/2025
Next Review Date	07/10/2028
NSQC Approval Date	07/10/2025
QP Version	5.0
Model Curriculum Creation Date	07/10/2025
Model Curriculum Valid Up to Date	07/10/2028
Model Curriculum Version	5.0
Minimum Duration of the Course	450 Hours
Maximum Duration of the Course	450 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.

- Build interpersonal relationships, and have a customer centric approach.
- Work with office package for reporting and documentation – MS- Word, Excel, PowerPoint.
- Attend field calls from client and handle complaints for system troubleshooting and repairs.
- Install and configure the networking, servers and storage systems.
- Interact and coordinate with the supervisor and colleagues etc.
- Follow safe and healthy work practices.

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
ELE/N5111 - Engage with customers for IT hardware services and repair	30:00	60:00	30:00	00:00	120:00
Module 1: Engage with customers for IT hardware services	30:00	60:00	30:00	00:00	120:00
ELE/N5112- Install and Set Up Computing Devices and Peripherals	60:00	60:00	60:00	00:00	180:00
Module 2: Install, and Set Up Computing Devices and Peripherals	60:00	60:00	60:00	00:00	180:00
ELE/N5110 – Coordinate, Communicate and Ensure Safe Field Service Delivery	30:00	60:00	30:00	00:00	120:00
Module 3: Coordinate, Communicate and Ensure Safe Field Service Delivery	30:00	60:00	30:00	00:00	120:00
DGT/VSQ/N0101- Employability Skills (30 Hours)	30:00	00:00	00:00	00:00	30:00
Module 6: Employability Skills (30 Hours)	30:00	00:00	00:00	00:00	30:00
Total Duration	150:00	180:00	120:00	00:00	450:00

Module Details

Module 1: Engage with customers for IT hardware services and repair

Mapped to ELE/N5111

Terminal Outcomes:

- Interact with the customer prior to visit.
- Identify customer's requirements and suggest possible solutions.

Duration: 30:00	Duration: 60:00
Theory - Key Learning Outcomes	Practical - Key Learning Outcomes
• Understand the responsibilities of an Assistant Technician, including technical support, installation, and maintenance of IT hardware and peripherals. • Learn how to effectively communicate with customers, confirm service requests, and understand site requirements including power and network setups. • Get known with the importance of professional behaviour and communication etiquette while interacting with clients. • Gain knowledge of basic IT hardware components including desktops, laptops, printers, routers, AV equipment, and other peripheral devices. • Understand the preparation steps required before starting an installation job, including tool checks and workspace readiness. • Learn configuration basics such as driver setup, connectivity (Wi-Fi/Bluetooth), and operating system deployment tools like MDT or Autopilot. • Understand how to test systems post-installation to verify correct operation and ensure customer satisfaction. • Develop knowledge in identifying common hardware and software faults and providing first-level troubleshooting. • Learn how to communicate repair or replacement needs, check warranty details, and follow proper service procedures. • Understand how to explain issues, suggest suitable solutions, and estimate time and cost for services. • Know how to gain customer approval before starting work and promote	• Demonstrate the ability to interact with customers professionally and confirm service appointments. • Accurately assess the site for installation needs including network and electrical requirements. • Apply effective communication and conduct standards during service visits. • Provide basic support for various computing and peripheral devices such as printers, routers, and AV systems. • Prepare tools and workstations before initiating any installation task. • Install systems and devices as per given instructions and configure required drivers and connectivity settings. • Use tools like MDT or Autopilot for deploying operating systems where required. • Conduct post-installation testing to ensure the systems are functioning properly. • Explain system functions to the customer and verify that they are satisfied with the service. • Troubleshoot and identify faults in hardware/software and explain findings clearly to the customer. • Assess warranty coverage and perform repairs using standard tools and methods. • Ensure all repaired devices are tested for full functionality before completion. • Clearly summarize issues and proposed solutions to the customer, including time and cost expectations. • Seek and record customer approvals prior to service execution and offer value-added

preventive maintenance practices or service plans. • Get aware of with the document service activities accurately, issue correct invoices, and maintain logs in accordance with company standards. • Learn the importance of timely task completion and delivering services that meet customer expectations.	suggestions like preventive measures or AMC options. • Fill out service documentation, generate invoices, and maintain proper logs for each job. • Ensure that all service tasks are completed efficiently and on time while maintaining high customer satisfaction.
Classroom Aids:	

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

Tools, Equipment and Other Requirements

Cable, Crimping Tool, Desktop, Digital Multimeter, Dot Matrix Printer, ESD Gloves, Ink Jet Printer, Insulation Tape, LanTester, Laptop, Lead Solder, Motherboard Diagnoser, Multi-Function Laser Printer, Network Switch, Post Cards, Router, Scanner, Screw Driver Set, Soldering Flux, Soldering Iron, job sheets, report formats

Module 2: Install and Set Up Computing Devices and Peripherals

Mapped to ELE/N5112

Terminal Outcomes:

- Install and configure the computing peripherals in the system as per SOP.
- Setup the computing peripherals in the system as per SOP.

Duration: 60:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Understand how to assess site conditions for safety and readiness before beginning an installation. • Learn the importance of carrying the right tools, equipment, and reference materials as per the installation requirements. • Gain knowledge of standard operating procedures for installing various computing and AV equipment. • Understand best practices for handling equipment to avoid material damage or defects. • Learn how to align device placement according to customer preferences and environment. • Acquire knowledge of installation steps for computing systems and AV equipment including smart TVs, projectors, webcams, video conferencing tools, and smart conference room setups. • Get introduced by the key requirements of peripheral devices and how to ensure all necessary components are available before installation. • Learn standard placement principles for peripherals based on usability and customer preferences. • Study proper procedures for connecting and configuring peripheral hardware such as printers, audio devices, and wireless display equipment. • Get to know, how to work with HDMI/AV cables, Bluetooth audio tools, and wireless casting technologies like Miracast, AirPlay, and Chromecast. • Recognize the importance of safety practices during hardware and peripheral installation.	• Assess site conditions to ensure safety and readiness before installation begins. • Demonstrate how to select and bring appropriate tools and manuals to the job site. • Follow installation instructions and model-specific handling guidelines precisely. • Handle all materials and devices carefully to avoid damage or defects. • Set up and position computing devices and AV systems based on customer layout preferences. • Install a wide range of hardware components including TVs, projectors, PTZ cameras, and conferencing systems used in smart meeting rooms. • Ensure all required peripheral hardware is available before beginning installation. • Identify suitable placement areas for peripherals based on customer convenience. • Connect and install devices such as printers, audio systems, and webcams using standard procedures. • Configure devices with HDMI/AV cabling and wireless features including casting solutions over secure networks. • Apply safety standards throughout the peripheral installation process. • Conduct functionality tests to confirm that all connected devices work as expected. • Document the customer's needs, installed components, and actions taken during the visit. • Install and set up operating systems and requested software on customer devices. • Set up additional software tools as per customer-specific requirements or

• Learn the process of testing, adjusting, and confirming peripheral performance post-installation. • Understand how to document installation steps and customer-specific requirements. • Gain knowledge about installing operating systems and required software based on customer needs. • Learn procedures for installing both standard and customized application software. • Explained how to verify the performance and integration of software, hardware, and peripheral components after installation. • Learn how to provide customers with basic operational training and maintenance guidance. • Explain the importance of completing installations within scheduled timelines. • Learn the steps required to close service calls in a single visit while maintaining quality. • Understand company standards for delivering professional, high-quality installation services	standard setups. • Switch on the complete system and test both hardware and software performance post-installation. • Ensure that all components—including software, devices, and networks—work in integration. • Guide the customer through basic system operations and preventive maintenance tips. • Complete all tasks within the assigned time frame to meet service-level targets. • Ensure the service visit ends with a fully functional setup and no repeat calls are required. • Deliver quality workmanship and follow brand or company quality standards during all stages of installation.
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Classroom Aids:

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

Tools, Equipment and Other Requirements

Cable, Crimping Tool, Desktop, Digital Multimeter, Dot Matrix Printer, ESD Gloves, Ink Jet Printer, Insulation Tape, Lan Tester, Laptop, Lead Solder, Motherboard Diagnoser, Multi-Function Laser Printer, Network Switch, Post Cards, Router, Scanner, Screw Driver Set, Soldering Flux, Soldering Iron, job sheets, report formats

Module 3: Coordinate, Communicate and Ensure Safe Field Service Delivery

Mapped to ELE/N5110

Terminal Outcomes:

- Work effectively at the workplace.
- Implement the practices related to gender and PwD sensitization.
- Describe the process of achieving optimum productivity and quality.
- Explain the importance of implementing health and safety procedures.
- Demonstrate the process of organizing waste management and recycling.
- Explain the importance of conserving resources.

Duration: 30:00	Duration: 60:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain how to interpret instructions and plan tasks effectively. • Describe procedures for reporting work status and addressing unresolved issues. • Identify performance benchmarks and time management strategies. • Learn the role of customer feedback in service improvement. • Understand the importance of proper documentation and service reporting. • Explain techniques for clear and structured team communication. • Understand coordination methods with support departments and logistics. • Learn the value of sharing timely updates across departments. • Recognize the importance of responding accurately to team and customer queries. • Understand safety practices during equipment handling and installations. • Learn about energy-efficient tools and environmentally responsible practices. • Explore how to identify and report workplace hazards. • Learn strategies to minimize material waste and improve resource usage. • Understand hygiene and PPE compliance requirements in service environments. • List common practices of conserving electricity.	• Demonstrate the ability to follow instructions and carry out assigned tasks. • Practice effective status reporting and escalation of unresolved issues. • Perform tasks within set deadlines and productivity targets. • Collect and record customer feedback effectively. • Maintain accurate service records and documentation. • Demonstrate clear and effective communication with team members. • Coordinate with support teams to ensure timely completion of tasks. • Share progress updates with relevant departments. • Provide accurate responses to queries from team members and customers. • Apply safety measures while handling tools and performing installations. • Use appropriate tools and follow environmentally conscious practices. • Identify potential hazards and follow proper reporting protocols. • Use materials efficiently and reduce unnecessary waste. • Demonstrate proper hygiene practices and use of protective equipment.

Classroom Aids

Training kit (Trainer guide, Presentations), White board, Marker, projector, laptop, flipchart.

Tools, Equipment and Other Requirements

Sample of escalation matrix, organisation structure.

Module 4: Employability Skills (30 Hours)

Mapped to DGT/VSQ/N0101

Terminal Outcomes:

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

Duration: 30:00	Duration: 00:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain constitutional values, civic rights, responsibility towards society to become a responsible citizen • Discuss 21st century skills • Explain use of basic English phrases and sentences. • Demonstrate how to communicate in a well-behaved manner • Demonstrate how to work with others • Demonstrate how to operate digital devices • Discuss the significance of Internet and Computer/ Laptops • Discuss the need for identifying business opportunities • Discuss about types of customers. • Discuss on creation of biodata Discuss about apprenticeship and opportunities related to it.	
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Computer, UPS, Scanner, Computer Tables, LCD Projector, Computer Chairs, White Board	
OR	
Computer Lab	

Module 5: On-the-Job Training

Mapped to Assistant Technician – Computer and Peripheral

Mandatory Duration: 120:00	Recommended Duration: 00:00
Location: On Site	
Terminal Outcomes 1. Explain the fundamental concepts of electronics and electronics components 2. Interact with the customer prior to visit. 3. Identify customer's requirements and suggest possible solutions 4. Identify requirements for computing peripheral installation and setup 5. Make adjustments such as white balance adjustment, audio video tests, etc. 6. Install and configure the computing peripherals in the system 7. Setup the computing peripherals in the system 8. Interact and coordinate with supervisor and colleagues 9. Work as per the given timeline and quality standards 10. Maintain a safe, healthy and secure work environment	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma/ ITI/ Certified in CITS Trade	Electronics	2	Computer and peripherals installation	1	Trainer	

Trainer Certification	
Domain Certification	Platform Certification
"Assistant Technician- Computer and Peripherals, ELE/Q4609, version 5.0". Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Assistant Technician- Computer and Peripherals "Trainer (VET and Skills)", mapped to the Qualification Pack: "MEP/Q2601, V2.0", with minimum score of 80%

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma/ ITI/ Certified in CITS Trade	Electronics	3	Computer and peripherals installation	2	Assessor	

Assessor Certification	
Domain Certification	Platform Certification
"Assistant Technician- Computer and Peripherals, ELE/Q4609, version 5.0". Minimum accepted score is 80%.	Recommended that the Assessor is certified for the Assistant Technician- Computer and Peripherals "Assessor (VET and Skills)", mapped to the Qualification Pack: "MEP/Q2701, V2.0", with minimum score of 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