



Model Curriculum

QP Name: Assistant Installation Computing and Peripherals

QP Code: ELE/Q4609

QP Version: 4.0

NSQF Level: 3

Model Curriculum Version: 4.0

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

Sector	Electronics
Sub-Sector	Consumer Electronics & IT Hardware
Occupation	After Sales Service
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7422.2022
Minimum Educational Qualification and Experience	10th Grade Pass OR 8th Grade Pass + NTC (2 years after 8th) OR 8th Grade Pass + 2 years relevant experience and 18 Years
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	31/03/2022
Next Review Date	31/07/2025
NSQC Approval Date	31/03/2022
QP Version	4.0
Model Curriculum Creation Date	31/03/2022
Model Curriculum Valid Up to Date	31/07/2025
Model Curriculum Version	4.0
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
Bridge Module	20:00	10:00	00:00	00:00	30:00
Module 1: Introduction to the role of Assistant Installation Computing And Peripherals	20:00	10:00	00:00	00:00	30:00
ELE/N4601 - Engage with customers for IT hardware service	30:00	60:00	60:00	00:00	120:00
Module 2: Engage with customers for IT hardware service	30:00	60:00	60:00	00:00	120:00
ELE/N4602 - Install, configure and setup hardware system	40:00	110:00	110:00	00:00	210:00
Module 3: Install, configure and setup hardware system	40:00	110:00	110:00	00:00	210:00
ELE/N9972 – Work Effectively at the Workplace	15:00	15:00	00:00	00:00	30:00
Module 4: Soft Skills and Work Ethics	15:00	15:00	00:00	00:00	30:00
ELE/N1003 – Apply Health and Safety Practices at the Workplace	15:00	15:00	00:00	00:00	30:00
Module 5: Basic Health and Safety Practices	15:00	15:00	00:00	00:00	30:00
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	210:00	90:00	00:00	450:00

Module Details

Module 1: Introduction to the role of Assistant Installation Technician Computing And Peripherals

Bridge module

Terminal Outcomes:

- List the role and responsibilities of an Assistant Installation Technician Computing and Peripherals.

Duration: 20:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Describe the size and scope of the electronics industry and its various sub-sectors. Discuss the various opportunities for an Assistant Installation Technician Computing and Peripherals in the industry. Define the basics of electronics and related concepts. Discuss the role and responsibilities of an Assistant Installation Technician Computing and Peripherals. Discuss organisational policies on incentives, delivery standards, personnel management and public relations (PR). 	<ul style="list-style-type: none"> Practical on electronic components To show and hands on computing components
Classroom Aids:	
Laptop, white board, marker, projector	
Tools, Equipment and Other Requirements	
NA	

Module 2: Engage with customers for IT hardware service

Mapped to ELE/N4601

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
<ul style="list-style-type: none"> • Describe behavioural etiquettes need to follow while interacting with customers. • Discuss ways to greet and listen customer on a call. • Discuss need of feedback from the customers on completion of work. • Discuss ways to identify customer requirements related computer system installation. • List companys products and recurring problems reported. • Describe basic electronics of system hardware. • Elaborate functions of electrical and mechanical parts/ modules. • List precautions to be taken while handling field calls and dealing with customers. • Describe open and close-ended questions. • List common problems occur to customer and possible solutions for them. • Discuss the importance of customer approval prior to service. • Describe Service Level Agreement (SLA) and its importance. • Discuss the relevant reference sheets, manuals and documents need to carry in the field. • Discuss the need of maintaining no repeat or second escalation from customer. 	<ul style="list-style-type: none"> • Demonstrate organisational procedure of calling customer based on inputs logged into customer care. • Show how to greet the customer and listen to their problem attentively • Show how to fix the visit and confirm related details from the customer. • Show how to collect feedback from the customers on completion of work. • Apply appropriate ways to identify customer requirements for placement of system during and after installation. • Apply appropriate ways to inform customer about the replacement or repair process. • Show how to enquire about warranty coverage. • Apply appropriate ways to educate customer about other useful products and annual maintenance contract. • Show how to explain the customers on time taken, repair process and possible cost for the service or inclusion under warranty and take customers approval on it. • Apply appropriate ways to summarise customer about the problem(s), actions taken and the cost associated and retain a copy. • Show how to provide appropriate invoice for any purchase of module or parts by customer. • Apply appropriate ways to assess the problem, suggest appropriate solutions and offer the right service as per customers requirements.
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 3: Install, configure and setup hardware system

Mapped to ELE/N4602

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: 40:00	Duration: 110:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the standard procedure as documented by the Mobile Phone brand for each model • Discuss need of checking site conditions prior to work. • List the steps to be performed for installation of new computer. • Discuss ways to handle hardware modules such as PCB with ESD standards. • Discuss the need of maintaining zero-material defect during material handling by following standard operating procedure. • List various computing peripheral available in market. • List the steps to be performed for connecting the peripheral devices with the system. • List the steps to be performed for installation of the operating system and appropriate software in the system. • List the steps to be performed for checking the functionality of system, peripherals and applications after installation. • Discuss the importance of completing the installation within the agreed Turn Around Time (TAT). 	<ul style="list-style-type: none"> • Demonstrate standard operating procedure to use tools and equipment required during installation process. • Show how to check and ensure any tailor-made programs required by the customer • Demonstrate organisational procedure of opening the new product and connecting all the hardware devices of desktop computer or laptop. • Demonstrate standard operating procedure for installation of each model of hardware devices. • Show how to place the system at a location as preferred by customer and install the hardware / devices as per standard operating procedure. • Show how to connect and install the peripheral devices with the system as per the standard procedure and according to customer requirements. • Perform steps to install the operating system and appropriate software in the system as per customer preference. • Show how to check the functionality of system, peripherals and applications. • Show how to complete the call closure in single visit and complete the task with the quality benchmark of the company. • Show how to document the work completed on the company ERP software for tracking and future references.
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 4: Soft Skills and Work Ethics

Mapped to ELE/N9972

Terminal Outcomes:

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

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • State the importance of work ethics and workplace etiquette • State the importance of effective communication and interpersonal skills. • Explain ways to maintain discipline at the workplace. • Discuss the common reasons for interpersonal conflict and ways of managing them effectively. • Discuss the importance of following organisational guidelines for dress code, time schedules, language usage and other behavioural aspects. • Explain the importance of working as per the workflow of the organisation to receive instructions and report problems. • Explain the importance of conveying information/instructions as per defined protocols to the authorised persons/team members. • Explain the common workplace guidelines and legal requirements on non-disclosure and confidentiality of business-sensitive information. • Describe the process of reporting grievances and unethical conduct such data breach, sexual harassment at the workplace, etc. • Explain the concept and importance of gender sensitivity and equality. • Discuss ways to create sensitivity for different genders and Persons with Disabilities (PwD). • Discuss ways of dealing with 	<ul style="list-style-type: none"> • Develop a sample plan to achieve organisational goals and targets. • Create a sample feedback form to obtain feedback from customers, colleagues etc. • Roleplay to demonstrate the use of professional language and behaviour that is respectful of PwD and all genders. • Apply organisational protocol on data confidentiality and sharing only with the authorised personnel.
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 5: Basic Health and Safety Practices

Mapped to ELE/N1003

Terminal Outcomes:

- Describe the process of achieving optimum productivity and quality.
- Explain the importance of implementing health and safety procedures.
- Demonstrate the process of organising waste management and recycling.
- Explain the importance of conserving resources.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the importance of time management. • Explain the organizational safety and health policy. • List different waste categories such as dry, wet, recyclable, non-recyclable and single-use plastic items. • Explain the usage of different colours of dustbins to dispose waste. • Explain the methods of waste disposal. • Explain the methods of recycling as well as repairing and reusing electronic components. • Explain the efficient utilisation of material and water. • Explain the basics of electricity and prevalent energy-efficient devices. • List ways to recognise common electrical problems. • List common practices of conserving electricity. 	<ul style="list-style-type: none"> • Show how to take ESD precautions while doing work. • Demonstrate the use of appropriate Personal Protective Equipment (PPE). • Show how to identify and segregate recyclable/non-recyclable and hazardous wastes. • Demonstrate the process of cleaning the tools, machines and equipment. • Show how to connect electrical equipment and appliances properly when in use and turn off when not in use.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 6: 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
<ul style="list-style-type: none"> • 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 7: On-the-Job Training

Mapped to Assistant Installation Technician Computing and Peripherals

Mandatory Duration: 90:00	Recommended Duration: 00:00
Location: On Site	
<p>Terminal Outcomes</p> <ol style="list-style-type: none"> 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
<p>“Assistant Installation Technician Computing and Peripherals, ELE/Q4609, version 4.0”. Minimum accepted score is 80%.</p>	<p>Recommended that the Trainer is certified for the Assistant Installation – Computing & Peripherals “Trainer (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2601, V2.0”, with minimum score of 80%</p>

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
<p>“Assistant Installation Technician Computing and Peripherals, ELE/Q4609, version 4.0”. Minimum accepted score is 80%.</p>	<p>Recommended that the Assessor is certified for the Assistant Installation – Computing & Peripherals “Assessor (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, V2.0”, with minimum score of 80%</p>

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

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