

# Model Curriculum

## Field Technician (Networking and Storage)

**SECTOR: ELECTRONICS**  
**SUB-SECTOR: IT Hardware**  
**OCCUPATION: AFTER SALES SERVICE**  
**REF. ID: ELE/4606 version 1.0**  
**NSQF LEVEL: 4**

 <b>Skill India</b> वीरमेव शरीरं - कुशलमेव मनसः	 <b>Certificate</b>	 N-S-D-C National Skill Development Corporation Transforming the skill landscape
<b>CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS</b>		
is hereby issued by the		
<b>ELECTRONICS SECTOR SKILLS COUNCIL OF INDIA</b>		
for the		
<b>MODEL CURRICULUM</b>		
Complying to National Occupational Standards of Job Role/ Qualification Pack: ' <b>Field Technician – Networking and Storage</b> ' QP No. ' <b>ELE/Q4606 NSQF Level 4</b> '		
Date of Issuance:	December, 2015	 Authorised Signatory (Electronics Sector Skills Council of India)
Valid up to:	March, 2016	
* Valid up to the next review date of the Qualification Pack		

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# Field Technician (Networking and Storage)

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Field Technician Networking And Storage”, in the “Electronics” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Field Technician (Networking and Storage)</b>		
<b>Qualification Pack Name &amp; Reference ID.</b>	Field Technician (Networking and Storage ) ELE/Q4606 version 1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	14-03-2015
<b>Pre-requisites to Training</b>	Diploma Graduate		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• Ability to build interpersonal relationships, and have a customer centric approach</li> <li>• Develop critical thinking and conduct root cause analysis – Problem solving</li> <li>• Business Communication, email etiquette</li> <li>• Working with office package for reporting and documentation – MS-Word, Excel, PowerPoint</li> <li>• Installing and configuring the networking, servers and storage systems</li> <li>• Attending to field calls from client and Handle Complaints for system trouble shooting and repairs</li> <li>• Knowing the importance of SLAs and Company Processes</li> </ul>		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of Field Technician Networking And Storage Qualification Pack issued by Electronic Sector Skill Council of India.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p><b>Hardware Essentials</b></p> <p><b>Theory Duration</b> (hh:mm) 12:00</p> <p><b>Practical Duration</b> (hh:mm) 18:00</p> <p><b>Corresponding NOS Code</b> ELE/N4601 ELE/N0009 ELE/N4602</p>	<ul style="list-style-type: none"> <li>Understanding the different component of computer , Assembly of system</li> <li>Troubleshooting of the system</li> <li>To understand layout, Components and from factors of mother board.</li> <li>To understand the form factors ,slot types and different memory types</li> <li>To identify the types of Storage. To Recognize the methods of storage and different hardware components used storage.</li> <li>To identify the types of hardware components in the computer and differentiate it.</li> <li>Installation of Operating System, Drivers Required, Software</li> <li>Recognize of the component of computer, troubleshooting</li> <li>Recognize of the installing and configuring of operating system and it drives.</li> <li>To understand importance of work etiquette. To understand the methods safety measure to be used.</li> <li>This will be Multiple question type.</li> <li>Presenting their learnt knowledge</li> </ul>	<p>Computer Laptop Laser Printer Ink Jet Printer Dot Matrix Printer Scanner Soldering iron Multimeter Repairing Tools</p>
2	<p><b>Network Essentials</b></p> <p><b>Theory Duration</b> (hh:mm) 14:00</p> <p><b>Practical Duration</b> (hh:mm) 14:00</p> <p><b>Corresponding NOS Code</b> ELE/N4601 ELE/ N0009 ELE/N4612 ELE/N4613</p>	<ul style="list-style-type: none"> <li>To understand the networking ,OSI Concepts Recognize the Network technologies.</li> <li>To understand the types of application functionality</li> <li>To understand the colour coding for the Ethernet cable to be crimping. Recognize network adaptor configuration</li> <li>Cisco Router Internal Hardware Basics, Router Boot Sequence, Configuring IP address on Serial and Fast Ethernet Interfaces, Configuring Console, VTY lines Passwords</li> <li>Recognize the network designed structure.</li> <li>To understand the different configuration methods of device</li> <li>To understands method of self-motivation, self-confidence.</li> <li>This will be Multiple question type.</li> <li>Presenting their learnt knowledge</li> </ul>	<p>Post cards Cabels Network switch Router Server LAN Tester Crimping Tool</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
3	<p><b>Windows 7</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 18:00</p> <p><b>Corresponding NOS Code</b> ELE/N4612 ELE/N4613</p>	<ul style="list-style-type: none"> <li>To understand features of windows client ,performance information ,tools configuration</li> <li>To understand the methods installation, Upgrading and its features</li> <li>To understand the method Configuring .maintaining, backup and recovery</li> <li>Recognize the methods of installation, configuration, system security.</li> <li>Recognize the methods of maintaining of backup, recovery and backup.</li> <li>To understand the method basic functions to be done, service to be provided, communicate effectively in formal situations. This will be Multiple question type.</li> <li>Presenting their learnt knowledge</li> </ul>	Videos, PPT's, Laptop, Projector, Projector Screen, White Board,
4	<p><b>Windows Server</b></p> <p><b>Theory Duration</b> (hh:mm) 12:00</p> <p><b>Practical Duration</b> (hh:mm) 20:00</p> <p><b>Corresponding NOS Code</b> ELE/N4612 ELE/N4613</p>	<ul style="list-style-type: none"> <li>To understand Directory services and different functional levels</li> <li>To understand methods of installing ,configuring Directory services.</li> <li>To understand the methods of creation of User Accounts , Groups Accounts, Computer Accounts , Delegating Administration</li> <li>To understand the methods of disaster recovery and backup.</li> <li>Recognize the method of implementing secure domain</li> <li>Recognize the method of administrating and creation of user, maintaining group policies</li> <li>To understand the goals set, improving the reading skills</li> <li>This will be Multiple question type.</li> <li>Presenting their learnt knowledge</li> </ul>	Videos, PPT's, Laptop, Projector, Projector Screen, White Board,
5	<p><b>Linux Server</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 18:00</p> <p><b>Corresponding NOS Code</b> ELE/N4612 ELE/N4613</p>	<ul style="list-style-type: none"> <li>Recognize the Linux features, basic commands</li> <li>To understand the methods of installing ,configuring server and services</li> <li>To understand the method of fault analysis, file system corruption.</li> <li>To understand method of installing, configuring network adaptor.</li> <li>To understand method of basic services, managing of storage.</li> <li>To understand the impact, body language, verbal communication, comprehension.</li> <li>This will be Multiple question type.</li> <li>Presenting their learnt knowledge</li> </ul>	Videos, PPT's, Laptop, Projector, Projector Screen, White Board,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
6	<p><b>IT Security</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 14:00</p> <p><b>Corresponding NOS Code</b> ELE/N4612 ELE/N4613</p>	<ul style="list-style-type: none"> <li>To understand the method of installing, configuring , outlook and concepts of anti-virus.</li> <li>To understand the methods of identifying types and indication of virus, worms, Trojan</li> <li>To understand the compatibility issues and common errors. Recognize basic security risksTo understand methods of system vulnerability and fixing them.</li> <li>To understand method s of measure to prevent them.</li> <li>To understand methods of having positive attitude, awareness, prioritize.</li> <li>This will be Multiple question type.</li> <li>Presenting their learnt knowledge</li> </ul>	Videos, PPT's, Laptop, Projector, Projector Screen, White Board,
7	<p><b>Concepts of ITIL</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 14:00</p> <p><b>Corresponding NOS Code</b> ELE/N4612 ELE/N4613 ELE/N0009</p>	<ul style="list-style-type: none"> <li>To understand the method monitoring, measuring and reporting</li> <li>To understand the Method of CSF,KPIs and Activity.</li> <li>To understand the methods of SLA, timeliness, response and resolution data</li> <li>To understand the problem management process flow, Determination resolution</li> <li>To Understand the methods Problem management.</li> <li>To Understand the methods tracking report and control measures</li> <li>To understand the methods for learning new things at your work.</li> <li>This will be Multiple question type.</li> <li>Presenting their learnt knowledge</li> </ul>	Videos, PPT's, Laptop, Projector, Projector Screen, White Board,
8	<p><b>Final Assessment</b></p> <p><b>Theory Duration</b> (hh:mm) 02:00</p> <p><b>Practical Duration</b> (hh:mm) 02:00</p> <p><b>Corresponding NOS Code</b> ELE/N4612 ELE/N4613 ELE/N0009</p>	<ul style="list-style-type: none"> <li>This will be Multiple question type Final Assessment (Theory &amp; Practical's)</li> <li>Scenario based</li> </ul>	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<b>Total Duration</b>  <b>Theory Duration</b> <b>80.00</b>  <b>Practical Duration</b> <b>120.00</b>	<b>Unique Equipment Required:</b> 1. Computer 2. Laptop 3. Laser Printer 4. Ink Jet Printer 5. Dot Matrix Printer 6. Scanner 7. Soldering iron 8. Multimeter 9. Post cards 10. Cabels 11. Network switch 12. Router 13. Server 14. LAN Tester 14. Crimping Tool 15. Screw Driver	

**Grand Total Course Duration: 200 Hours 00 Minutes**

**(This syllabus/ curriculum has been approved by ELECTRONIC SECTOR SKILL COUNCIL OF INDIA)**



## Trainer Prerequisites for Job role: Field Technician Networking and Storage mapped to Qualification Pack: “ELE/Q8104”

Sr. No.	Area	Details
1	<b>Job Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “ELE/Q4606 <b>version 1.0</b> ”.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for Earn and keep oneself updated with the latest in the mentioned field quality and for developing others; well-organised and focused, eager to learn.
3	<b>Minimum Educational Qualifications</b>	12 th Standard Pass with 2 Years Industry Experience.
4a	<b>Domain Certification</b>	Certified for Job Role: “Field Technician – Networking and Storage” mapped to QP: “ELE 4606 ”. Minimum accepted score 70 %
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/Q1402”. Minimum accepted score =70%
5	<b>Experience</b>	2 year of relevant Industrial and Trainer Exp.

## Annexure: Assessment Criteria

<b>Assessment Criteria for Field Technician Networking and Storage</b>	
<b>Job Role</b>	<b>Field Technician Networking and Storage</b>
<b>Qualification Pack :</b>	<b>ELE/Q4606 version 1.0</b>
<b>Sector Skill Council : Electronics Sector Skill of India</b>	<b>Electronics Sector Skill of India</b>

<b>Sr. No.</b>	<b>Guidelines for Assessment</b>
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack , every trainee should score a minimum of 70% in every NOS
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

Sr. No.	NOS No.	NOS Name	Total Marks	Marks Allocation: Skills	Marks Allocation: Knowledge	Marks Allocation: Behavior
1	ELE/N4601	Engage with customers	100	60	40	
2	<b>ELE/N4612</b>	Install, configure and setup the networking and storage system	100	60	40	
3	<b>ELE/N4613</b>	Troubleshoot and fix equipment	100	60	40	
4	<b>ELE/N9909</b>	Coordinate with colleagues and co-workers	100	60	40	
	<b>Total:</b>		<b>400</b>	<b>240</b>	<b>160</b>	
	<b>Percentage Weightage:</b>			<b>60%</b>	<b>40%</b>	
	<b>Minimum Pass% to qualify:</b>			<b>70%</b>	<b>70%</b>	



## Electronics Sector Skill Council of India

422, Okhla Industrial Estate, Phase-III, New Delhi-110020