

QUALIFICATION FILE

IT Hardware Maintenance Executive

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☐ Upskilling ☐ Dual/Flexi Qualification ☐ For ToT ☐ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 5

Submitted By:

Electronics Sector Skills Council of India (ESSCI)

155, 2nd Floor, ESC House

Okhla Industrial Area - Phase 3,

New Delhi – 110020

Tel: 011 – 8447738501

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Specify the training duration and assessment criteria at NOS/ Module level. For further details refer to the curriculum document.	5
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Section 1: Basic Details

1.	Qualification Name	IT Hardware Maintenance Executive														
2.	Sector/s	Electronics														
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: (change to previous, once approved)- QG-05-EH-01343-2023-V1.1-ESSC & V3.0		Qualification Name of existing/previous version: Service Engineer – IT Hardware												
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA														
5.	National Qualification Register (NQR) Code & Version (Will be issued after NSQC approval)	QG-05-EH-03977-2025-V4-ESSCI		6. NCrF/NSQF Level: 5												
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other) (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate														
8.	Brief Description of the Qualification	IT Hardware Maintenance Executive is responsible for attending to problems in IT hardware and related software systems problems either as a dedicated engineer at the customer premises (Facility Management) or remotely (Managed Services).														
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>UG Diploma in the relevant field (Physics/Electronics/ Electrical/Mechanical/Computer Science)</td> <td>1.5 years of relevant experience required.</td> </tr> <tr> <td>2</td> <td>3 Years Diploma after 10th (Electronics/Electrical/ Mechanical/ Computer Science)</td> <td>3 years of relevant experience.</td> </tr> <tr> <td>3</td> <td>Previous relevant qualification of NSQF level 4.5</td> <td>1.5 years of relevant experience.</td> </tr> </tbody> </table> # Relevant Experience in Consumer Electronics & IT Hardware.			S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	UG Diploma in the relevant field (Physics/Electronics/ Electrical/Mechanical/Computer Science)	1.5 years of relevant experience required.	2	3 Years Diploma after 10 th (Electronics/Electrical/ Mechanical/ Computer Science)	3 years of relevant experience.	3	Previous relevant qualification of NSQF level 4.5	1.5 years of relevant experience.
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)														
1	UG Diploma in the relevant field (Physics/Electronics/ Electrical/Mechanical/Computer Science)	1.5 years of relevant experience required.														
2	3 Years Diploma after 10 th (Electronics/Electrical/ Mechanical/ Computer Science)	3 years of relevant experience.														
3	Previous relevant qualification of NSQF level 4.5	1.5 years of relevant experience.														
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	19		11. Common Cost Norm Category (I/II/III) (wherever applicable): I												
		b. Age: NA														

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12. Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																							
13. Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	☐ Offline ☐ Online ☒ Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>00:00</td> <td>240:00</td> <td>150:00</td> <td>00:00</td> <td>570:00</td> </tr> <tr> <td>Online</td> <td>180:00</td> <td>00:00</td> <td>00:00</td> <td>00:00</td> <td></td> </tr> </tbody> </table> (Refer Blended Learning Annexure for details)						Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	00:00	240:00	150:00	00:00	570:00	Online	180:00	00:00	00:00	00:00	
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Classroom (offline)	00:00	240:00	150:00	00:00	570:00																			
Online	180:00	00:00	00:00	00:00																				
14. Aligned to NCO/ISCO Codels (if no code is available mention the same)	NCO-2015/3512.0501																							
15. Progression path after attaining the qualification (Please show Professional and Academic progression)	Assistant Manager Service																							
16. Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																							
17. Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:																							
18. Is the Job Role Amenable to Persons with Disability	☐ Yes ☒ No If "Yes", specify applicable type of Disability:																							
19. How Participation of Women will be Encouraged	No gender sensitization																							
20. Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	☒ Yes ☐ No Employability Skills (DGT/VSQ/N0102)																							
21. Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☐ Yes ☒ No Colleges ☒ Yes ☐ No																							
22. Name and Contact Details of Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: Saleem Ahmed Email: ceo@essc-india.org Contact No.: 011 – 8447738501 Website: https://www.essc-india.org/																							
23. Final Approval Date by NSQC: 07.05.2025	24. Validity Duration: 3 Years			25. Next Review Date: 30.04.2028																				

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer to the curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Manage on-premises IT hardware for customers	ELE/N3190 & V 1.0	Core	5	9	96	114	60	00	270	40	50	00	10	100	40
2.	Remotely manage and support customer IT systems	ELE/N3191 & V 1.0	Core	5	8	60	90	90	00	240	40	50	00	10	100	40
3.	Employability Skills (60 hours)	DGT/VSQ/N0102 & V1.0	Non-core	4	2	24	36	00	00	60	20	30	00	00	50	20
Duration (in Hours) / Total Marks					19	180	240	150	00	570	100	130	00	20	250	100

Elective NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.																
2.																
Duration (in Hours) / Total Marks																

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.																
2.																
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 70 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Minimum Pass Percentage – NOS/Module-wise: ____% (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Diploma/ITI (Electronics/Electrical/Mechanical/Computer Science) with 2 years industrial and 1 year training experience in the field of Engineering – Customer Support. Or Certified in relevant CITS Trade
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Diploma/ITI (Physics, Electronics, Electrical, Mechanical & Computer Science) with 3 years industrial and 1 years training experience in the field of Engineering – Customer Support. Or Certified in relevant CITS Trade
3.	Tools and Equipment Required for Training	☒ Yes ☐ No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma/ITI (Electronics/Electrical/Mechanical/Computer Science) with 3 years industrial and 1 years' assessment experience in Engineering – Customer Support. Or Certified in relevant CITS Trade
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma/ITI (Electronics/Electrical/Mechanical/Computer Science) with 4 years industrial and 1 years' assessment experience in Engineering – Customer Support. Or Certified in relevant CITS Trade
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Diploma/ITI Electronics/Electrical/Mechanical/Computer Science) with 4 years industrial and 1 years' assessment experience in Engineering – Customer Support. Or Certified in relevant CITS Trade
4.	Assessment Mode (Specify the assessment mode)	Blended
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☐ Yes ☐ No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 23
5.	Estimated nos. of persons to be trained and employed: 1000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes If "No", why:

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors (Mandatory)	Attached
2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Attached
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Attached
4.	Annexure: Assessment Strategy (Mandatory)	Attached
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	Filled
6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	Filled
7.	Annexure: Acronym and Glossary (Optional)	Attached
8.	Supporting Document: Model Curriculum (Mandatory – Public view)	Attached
9.	Supporting Document: Career Progression (Mandatory - Public view)	Attached
10.	Supporting Document: Occupational Map (Mandatory)	Attached
11.	Supporting Document: Assessment SOP (Mandatory)	
12.	Any other document you wish to submit:	

Annexure: Evidence of Level

NCrf/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrf/NSQF level descriptor	NCrf/NSQF Level
Professional Theoretical Knowledge/Process	Demands a wide range of specialized technical skill, clarity of knowledge and practice in broad range of activity involving standard and non-standard practices. • Maintain IT hardware and related software system	A IT Hardware Maintenance Executive is responsible for attending to problems in IT hardware and related software systems problem either as a dedicated engineer at the customer	5

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	• Manage assets and warranty issues • Monitor IT hardware system on site and remotely • Maintain records of schedules • Manage errors and problems • Interact with customer, vendor and superior • Plan the work as per the job allocation • Prepare all necessary records	premises (Facility Management) or remotely (Managed Services) Hence Level 5	
Professional and Technical Skills/ Expertise/ Professional Knowledge	Factual and theoretical knowledge in broad contexts within a field of work or study. • Knowledge of hardware components • Know the types of monitoring and statistical tools • Perform vendor and incident management	An IT Hardware Maintenance Executive should know the basics of IT electronics, hardware and its components. He/She should be aware of changes in technology of the product and do asset tracking. He/she should have knowledge about monitoring tools Hence Level 5	5
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study. • Identify the work requirement to schedule timely completion accordingly • Apply the knowledge about the hardware components in servicing customer's system on site and remotely • Use statistical and statistical tools for monitoring • Manage assets and warranty issues • Complete the documentation of work done	An IT Hardware Maintenance Executive should be able to guide in use monitoring and statistical tools for assessing the health of the system He gives work requirements as a supervisor or a work schedule and also receives inputs from his supervisor Hence Level 5	5

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Broad Learning Outcomes/Core Skill	Needs proficiency in: - Communicating in clear, crisp and respectful language - Understanding workplace related documentation, guidelines, policies and procedures - Complying with organizational and professional code of ethics and standards of practice	Accountable for own work and learning as well as guiding the subordinate in the domain of product engineering and Hence Level 5	5
Responsibility	Responsibility of completing the work assigned and reporting the same as per standards. - Understand the job role and follow the organizational policy - Record and report about the work status - Follow safety regulations at work place - Work along with colleagues and supervisors	An IT Hardware Maintenance Executive is responsible to record and report the work done. The engineer is also responsible to understand and follow the work standards and policies. Hence Level 5	5

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specifications	Quantity for specified Batch size
1	Lan Cable	Nos	50
2	Crimping Tool	Nos	6
3	Desktop computer	Nos	6
4	Digital Multimeter	Nos	6
5	Dot Matrix Printer	Nos	2
6	ESD Gloves	Nos	6
7	Ink Jet Printer	Nos	3
8	Insulation Tape	Nos	6
9	Lan Tester	Nos	6
10	Laptop	Nos	5
11	Lead Solder	Nos	6

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12	Multi-Function Laser Printer	Nos	3
13	Network Switch	Nos	6
14	Post Cards	Nos	6
15	Router	Nos	6
16	Screw Driver Set	Nos	6
17	Soldering Flux	Nos	6
18	Soldering Iron	Nos	6
19	Network/Wi-Fi Printers	Nos	2
20	Power cables	Nos	20
21	RJ 45 JACKS	Nos	100
22	UPS	Nos	4
23	Sata Cables	Nos	5
24	USB Printer Cables	Nos	5
25	Solid State Drives	Nos	2
26	Bootable Install media Pen Drives	Nos	6
27	Bootable Install media CD/DVD	Nos	6
28	Speakers	Nos	4
29	Wi-Fi adapters	Nos	4
30	Scanners	Nos	2
31	Bar code Scanners	Nos	1
32	POS Printer	Nos	1
33	Server Computer	Nos	2
34	Workstation Computer	Nos	2
35	System Monitoring tools	Nos	12
36	Network Monitoring tools	Nos	12
37	Antivirus/Antimalware	Nos	12

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Projector
3. Computer/Laptop
4. Chairs
5. Tables
6. Whiteboard marker

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	Nagdeo Education Welfare Society	Vijay Nagdeo	General Manager	Ward No. 11 Junnardeo Dist. Chhindwara M.P. 480551	9425461093	Vijaynagdeo02@gmail.com	
2	Access Edutech Pvt. Ltd.	Sanjay Kumar Mishra	Director	96, Vrindavan Nagar Ayodhya Bypass Road Bhopal	7000650224	sanjaymishra@accessedutech.com	
3	Shiv shakti techniki evam samanaya shikshan sansthan	Jitendra Kumar Garg	President	B 32 Mahesh nagar jaipur rajasthan-302015	9782912782	jitendra.garg303@gmail.com	
4	Yaduvanshi private iti	YADVENDRA	PRINCIPAL	TC229199 - Yaduvanshi pvt iti, hasampur the- neemkathana dist-sikar RAJASTHAN PIN CODE NO -332718	8432882688	yaduvanshicollege2008@gmail.com	
5	Sri Venkateswara College of Engineering	Dr C Chandrasekhar	Head R &D & Professor in ECE	Karakmbadi Road,Tirupati 517507	9177217190	dr.chandrasekhar.c@svcolleges.edu.in	
6	Shri Prasad Sharma Shikshan Sansthan Myana	Suresh		Gautam Budha Nagar UP	8433476571		
7	Shree Hari Shikshan Santhan Aaspura	Mukesh Kumar	SPOC	Rajasthan 341508	7877239952	Harikct2024@gmail.com	
8	Tata Consultancy Services.	Sheepra Kaushik	Consultant – Product Development	Kensington B Wing, Hiranandani SEZ, Powai, Mumbai 400076	8433595090	sheepra.sharma@tcs.com	

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9	Rastriya Khushali Sansthan	Ramkaran Sinsinwar	President	VOP Tajsar Fatehpur Rajasthan	6350658040	Rkstajsar1998@gmail.com	
10	Nagravision India Pvt. Ltd	Avinash Yadav	System Administrator	RMZ Centennial, Tower C unit 301 and 302, Opp. Graphite India, Mahadevapura Post ITPL Road, 560048 Bangalore, India	9808326626	avinash.yadav@nagra.com	
11	Shri Solasar Balaji Shikshan Sansthan			Rajasthan	9358734466		
12	Upadhyay Shiksha Samiti	K K Upadhyay		Agra	9149158684	Kk7500081234@gmail.com	
13	Ephicity Lifescience Analytics	Rahul Kumar Kaushik	Senior Software Engineer	2nd Main Rd, Sarvobhogam Nagar, Arekere, Bengaluru, Karnataka 560076	8859885973	Rahul.Kaushik@ephicity.com	
14	Evergreen Education Trust	Faizanbazaz	Director	217, Pehari Colony Jammu 180005	7006341193	eetturst@gmail.com	
15	Conduent- https://www.conduent.com	Prince Jain	Senior Business Analyst	7 to 9th Floor & 6 to 9th Floor, Building No.5 & 6, Plot No 20&21, Candor Tech Space, IT/ITES SEZ., Noida, Uttar Pradesh 201304	8439385780	prince.jain@conduent.com	
16	Artificial Intelligence Technologies	Rohit Kumar Sharma	Manager Product Development	A-21, sector 4, Block A, Kailash Colony, Greater Kailash, New Delhi	9927564461	rohit.sharma@aituniversitysal.com	
17	Siemens Limited, R&D Centre	Manoj Belgaonkar	Head Regulations, Standards and QM	Thane Belapur Road, Airoli, Navi Mumbai 400708	9841398025	manoj.belgaonkar@siemens.com	
18	Ramyash pvt iti			Jamalpur	9781816001		

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19	IIE Educational Society	Barinder Singh	President		9829745313	ivyindiaprojects@gmail.com	
20	Bergen Associates Pvt Ltd.	Soubam Sunil	Manager	305-306, Magnum House-I, Commercial Complex, Karampura, New Delhi – 110015	9311780832	s.soubam@bergengroupindia.com	
21	Nexgen- http://www.nexgen-exhibitions.com/	Saurabh Purwar	Director	1201/1206 Pragati Tower, 26 Rajendra Place, New Delhi-110008, India	9457306691	fbvidgo@gmail.com	
22	Shri Dharma Shikshan Sansthan	Rajendra	Principal		88086969668		
23	Sankalp Education and development society	Jafruddin Khan	SPOC		8104049522		

Annexure: Training Details

Training and Employment Projections:

Year	Total Candidates	Women	People with Disability
	Estimated Training # Total	Estimated Training # Women	Estimated Training # PwD
2025-26	250	NA	NA
2026-27	250	NA	NA
2027-28	500	NA	NA

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
3.0	2022-23	155	140	126	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.0	2023-24	183	169	160	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.0	2024-25	317	305	295	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

- 1.
- 2.

Content availability for previous versions of qualifications:
☒ Participant Handbook ☒ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:
Languages in which Content is available:

1. English
2. Hindi

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:**Refer NCVET “Guidelines for Blended Learning for Vocational Education, Training & Skilling” available on:**<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline : Online Ratio
1	☒ Theory/ Lectures - Imparting theoretical and conceptual knowledge	• Books/ e-books • Presentations • Reference Material • Audio / Video Modules	30:70
2	☒ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	• Self-Learning Videos • Broadcasts • Mobile Learning • Curated Digital content	30:70
3	☒ Showing Practical Demonstrations to the learners	• Video Content • E-Resource library • AR/ VR/ XR	30:70
4	☒ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	• Training tools (tools list attached) • Video Play • Presentations	30:70

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5	☒ Tutorials/ Assignments/ Drill/ Practice	• Online Question Bank • Mobile Quick test app • MCQ based tests	30:70
6	☒ Proctored Monitoring/ Assessment/ Evaluation/ Examinations	• Assessment engine for Essays • Up-loadable file examinations • Mock test sessions	30:70
7	☒ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	• Online tests • Offline assessments	30:70

NSQC Approved

Annexure: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
ELE/N3190: – Manage on-premises IT hardware for customers	<i>Maintain IT hardware and related software system</i>	20	28	-	3
	PC1. Assess work requirements using customer records and real-time asset management tools, covering printers, routers, switches, servers, intercoms, video conferencing systems, and connectivity devices.	2	3		1
	PC2. Evaluate electronics hardware components and software systems, including end-user computing (EUC), IoT devices, and edge computing systems at the customer's facility.	2	3		1
	PC3. Diagnose software issues using automated diagnostic tools and install prescribed software, updates, or patches as required.	2	3		1
	PC4. Identify, isolate, and replace faulty electronics components using advanced testing equipment and tools.	2	3		
	PC5. Maintain an electronics components inventory of critical spares, ensuring availability for frequently encountered issues.	2	3		
	PC6. Escalate complex issues requiring external support to vendors or senior engineers using ticketing and escalation platforms.	2	3		
	PC7. Create a digital inventory of all hardware (IT & electronics- PCs, laptops, tablets, IoT devices, routers, switches, intercom systems, and edge computing systems), including warranty details, serial numbers, and service history, using asset management software.	2	3		
	PC8. Maintain comprehensive records of purchase dates, warranty coverage, and scheduled maintenance activities in a centralized database.	2	3		
	PC9. Evaluate asset health and prioritize maintenance schedules based on criticality, redundancy, and predictive analytics.	2	2		
	PC10. Update and manage records of decommissioned assets or those reassigned to employees or returned.	2	2		
	<i>Monitor IT hardware system</i>	10	10	-	1
	PC11. Identify and download software/recommended tools for monitoring specific systems	2	2		1
	PC12. Identify and apply updates for applications, operating systems, and firmware in compliance with the customer's IT policies.	2	2		
	PC13. Implement and manage robust security and access controls for end-user computing devices, including encryption and multi-factor authentication.	2	2		
	PC14. Continuously monitor servers, storage devices, and network infrastructure for seamless operations and early issue detection.	2	2		
	PC15. Ensure proper environmental conditions for IT assets, such as optimal temperature and dust-free zones, using IoT-based monitoring devices.	2	2		

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	<i>Maintain records of schedules</i>	4	4	-	1
	PC16. Update digital logs of daily activities, including wifi connectivity ,preventive and corrective maintenance, software updates, and license renewals.	2	2		1
	PC17. Maintain secure documentation of passwords, encryption keys, networking & security protocols, and records of system incidents, including criticality and resolution times.	2	2		
	<i>Interact with customer and superior</i>	6	8	-	5
	PC18. Collaborate with customers to minimize system downtime and optimize workflow efficiency.	1	2		1
	PC19. Communicate non-routine issues, escalations, and customer feedback to supervisors using reporting and collaboration tools.	1	2		1
	PC20. Educate customers on preventive measures, best practices, and standard operating procedures to avoid recurring issues.	2	2		1
	PC21. Inform customers about product updates, warranty coverage, service costs, and hardware replacement policies.	2	2		2
	Total Marks	40	50	-	10
ELE/N3191: – Remotely manage and support customer IT systems	<i>Monitor systems remotely</i>	24	30	-	4
	PC1.use monitoring tools to keep watch on critical hardware either 24x7 or as as per contract	5	6		1
	PC2.monitor EUC, server and storage administration, network operations and protocols and online systems	5	6		1
	PC3.link the monitoring system to regional hub	5	6		1
	PC4.develop new or refine existing monitoring tools	5	6		1
	PC5.configure systems manually or automatically	4	6		
	<i>Manage errors and problems</i>	16	20	-	6
	PC6.comply with processes for problem incidence, response time and escalation time	4	5		1
	PC7.identify problem areas in real time and troubleshoot	4	5		1
	PC8.use statistical tools to develop intelligence and spot potential areas of disruptions	4	5		2
	PC9.record downtime details	4	5		2
	Total Marks	40	50	-	10
DGT/VSQ/N0102 - Employability Skills (60 hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. identify employability skills required for jobs in various industries	-	-	-	-
	PC2. identify and explore learning and employability portals	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-

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PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self- Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely				

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		-	-	-	-
	PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
	PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-
	<i>Entrepreneurship</i>	2	3	-	-
	PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
	PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
	PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
	<i>Customer Service</i>	1	2	-	-
	PC26. identify different types of customers	-	-	-	-
	PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
	PC28. follow appropriate hygiene and grooming standards	-	-	-	-
	<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
	PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
	PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
	PC31. apply to identified job openings using offline/online methods as per requirement	-	-	-	-
	PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
	PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
	Total Marks	20	30	-	-
	Grand Total	100	130	-	20

Annexure: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

Mention the detailed assessment strategy in the provided template.

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

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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

On the Job:

Each module (which covers the job profile of IT Hardware Maintenance Executive) will be assessed separately.

1. The candidate must score 50% in each module to successfully complete the OJT.
2. Tools of Assessment that will be used for assessing whether the candidate is having desired skills and etiquette of dealing with customers, understanding needs & requirements, assessing the customer and performing Soft Skills effectively:
 - Videos of Trainees during OJT
 - Answer Sheets of Question Banks
 - Assessing the Log Book entries of Trainees at Employer location
 - Employer Performance Feedback.
3. Assessment of each Module will ensure that the candidate is able to:
 - Understand the theoretical concept of IT Hardware
 - Understand practical aspect of troubleshooting of the faults
 - Perform repairing of the faults
 - Work effectively at the workplace

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS defines the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf