

QUALIFICATION FILE

Handheld Devices (Mobile & Accessories) Technician

☒ 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: 4.0

Submitted By:

Telecom Sector Skill Council

3rd Floor, Plot No 126, Sector - 44 Gurgaon - 122003

Email: tssc@tsscindia.com

Table of Contents

Section 1: Basic Details 3

Section 2: Module Summary 6

 NOS/s of Qualifications..... 6

 Mandatory NOS/s: 6

 Assessment - Minimum Qualifying Percentage..... 6

Section 3: Training Related..... 7

Section 4: Assessment Related..... 7

Section 5: Evidence of the need for the Qualification..... 8

Section 6: Annexure & Supporting Documents Check List..... 8

 Annexure 1: Evidence of Level..... 9

 Annexure 2: Tools and Equipment (Lab Set-Up) 13

 Annexure 3: Industry Validations Summary..... 14

 Annexure 4: Training & Employment Details 17

 Annexure 5: Blended Learning 18

 Annexure 6: Detailed Assessment Criteria 18

 Annexure 7: Assessment Strategy..... 28

 Annexure 8: Acronym and Glossary 31

Section 1: Basic Details

1.	Qualification Name	Handheld Devices (Mobile & Accessories) Technician																			
2.	Sector/s	Telecom																			
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: (2022/TEL/TSSC/07004, V4.0)	Qualification Name of existing/previous version: Handheld Devices (Handset & Tablet) Technician																		
4.	a. OEM Name b. Qualification Name (Wherever applicable)																				
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-04-TL-04072-2025-V2-TSSC	6. NCrF/NSQF Level: 4.0																		
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	A Handheld Devices (Mobile & Accessories) Technician is responsible for diagnosing and repairing hardware and software issues in mobile phones, tablets, laptops and mobile accessories. The individual also performs basic chip-level repairs and ensures device functionality, maintains quality standards, and adheres to the applicable safety and environmental protocols.																			
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>12th Grade Pass</td> <td></td> </tr> <tr> <td>2.</td> <td>Completed 2nd year of 3-year diploma after 10th in in Electronics/ Computer Engineering/ Information Technology domain</td> <td></td> </tr> <tr> <td>3.</td> <td>10th Grade Pass</td> <td>3 years of experience in handheld device repair</td> </tr> <tr> <td>4.</td> <td>Previous relevant Qualification of NSQF Level 3 with minimum education as 8th grade pass</td> <td>3 years of experience in handheld device repair</td> </tr> <tr> <td>5.</td> <td>Previous relevant Qualification of NSQF Level 3.5</td> <td>1.5 years of experience in handheld device repair</td> </tr> </tbody> </table> b. Age: NA		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	12th Grade Pass		2.	Completed 2nd year of 3-year diploma after 10th in in Electronics/ Computer Engineering/ Information Technology domain		3.	10th Grade Pass	3 years of experience in handheld device repair	4.	Previous relevant Qualification of NSQF Level 3 with minimum education as 8th grade pass	3 years of experience in handheld device repair	5.	Previous relevant Qualification of NSQF Level 3.5	1.5 years of experience in handheld device repair
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																			
1.	12th Grade Pass																				
2.	Completed 2nd year of 3-year diploma after 10th in in Electronics/ Computer Engineering/ Information Technology domain																				
3.	10th Grade Pass	3 years of experience in handheld device repair																			
4.	Previous relevant Qualification of NSQF Level 3 with minimum education as 8th grade pass	3 years of experience in handheld device repair																			
5.	Previous relevant Qualification of NSQF Level 3.5	1.5 years of experience in handheld device repair																			

10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	16	11. Common Cost Norm Category (I/II/III) (wherever applicable): I																							
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>180</td> <td>210</td> <td>90</td> <td></td> <td>480</td> </tr> <tr> <td>Online</td> <td>180</td> <td></td> <td></td> <td></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)	180	210	90		480	Online	180				
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																					
Classroom (offline)	180	210	90		480																					
Online	180																									
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/7422.0203																								
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Handheld Devices (Mobile & Accessories) Technician (NSQF Level 4) → Mobile Phone Repair Sr. Technician (NSQF Level 4.5)																								
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: <i>Motor Impairment, Hearing Impairments, Speech and Language Disorders</i>																								
19.	How Participation of Women will be Encouraged	Encouraging the participation of women in the role of Handheld Devices (Mobile & Accessories) Technician in the telecom sector can be achieved through strategies that foster diversity, inclusivity, and gender equality. This can include offering targeted training and skill development programs for female candidates interested in these roles. Additionally, creating a workplace culture that is safe, respectful, and inclusive, and free from harassment or discrimination, is crucial for ensuring equal opportunities for women in the telecom sector.																								
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	☒ Yes ☐ No NOS: TEL/N9108																								
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: Mr. Praveen Sirohi Email: ceo@tsscindia.com Website: www.tsscindia.com Contact No.: 0124-4148029																								

23.	Final Approval Date by NSQC: 08-05-2024	24. Validity Duration: 3 years	25. Next Review Date: 30-04-2028
-----	---	--------------------------------	----------------------------------

NSQC Approved

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 curriculum document.

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

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF 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.	Perform basic hardware and software repair of Android mobile phones and iPhones	TEL/N2213, v4.0	Core	4.0	6	50	100	30	-	180	30	50	-	20	100	30
2.	Perform basic hardware and software repair of Android tablets and iPads	TEL/N2214, v3.0	Core	4.0	4	30	60	30	-	120	30	50	-	20	100	25
3.	Perform basic hardware and software repair of Windows laptops, MacBook, and mobile accessories	TEL/N2218, v1.0	Core	4.0	3	30	30	30	-	90	30	50	-	20	100	25
4.	Follow sustainability practices in telecom operations	TEL/N9108, v1.0	Core	4.0	1	10	20	-	-	30	30	50	-	20	100	10
5.	Employability Skills (60 Hours)	DGT/VSQ/N0102, v1.0	Non-Core	4.0	2	60	-	-	-	60	20	30	-	-	50	10
Duration (in Hours) / Total Marks					16	180	210	90	-	480	140	230	-	80	450	100

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)	Educational Qualification: Graduate in any discipline, preferably Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Industry & Training Experience: Minimum 6 years of experience after Graduation in Handset Repairing. Certification: "Trainer" mapped to the Qualification Pack "MEP/Q2601, v3.0". Minimum accepted score is 80% aggregate.
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Educational Qualification: Graduate in any discipline, preferably Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Industry & Training Experience: Minimum 8 years of experience after Graduation in Handset Repairing. Certification: "Master Trainer" mapped to the Qualification Pack "MEP/Q2602, v3.0". Minimum accepted score is 90% aggregate.
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)	Educational Qualification: Graduate in any discipline, preferably Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Industry & Training Experience: Minimum 6 years of experience after Graduation in Handset Assembling. Certification: "Assessor" mapped to the Qualification Pack "MEP/Q2701, v3.0". Minimum accepted score is 80% aggregate.
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Educational Qualification: Graduate in any discipline, preferably Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Industry & Training Experience: Minimum 6 years of experience after Graduation in Handset Assembling. Certification: "Assessor" mapped to the Qualification Pack "MEP/Q2701, v3.0". Minimum accepted score is 80% aggregate.

3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Educational Qualification: Graduate in any discipline, preferably Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Industry & Training Experience: Minimum 8 years of experience after Graduation in Handset Assembling. Certification: "Lead Assessor" mapped to the Qualification Pack "MEP/Q2702, v3.0" Minimum accepted score is 90% aggregate.
4.	Assessment Mode <i>(Specify the assessment mode)</i>	Offline/Online
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☐ Yes ☐ No <i>(details to be provided in Annexure-if it is different for Assessment)</i>

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): NA
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): NA
3.	Government /Industry initiatives/ requirement (Yes/No): NA
4.	Number of Industry validation provided: 21
5.	Estimated nos. of persons to be trained and employed: 31240
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: <i>Approved</i> 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 <i>(Mandatory)</i>	<i>Annexure 1</i>
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	<i>Annexure 2</i>
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	<i>Annexure 6</i>
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	<i>Annexure 7</i>
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is "Blended Learning")</i>	NA

6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	NA
7.	Annexure: Acronym and Glossary (Optional)	Annexure 8
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)	Attached
12.	Any other document you wish to submit:	NO

Annexure 1: 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	Repair and test mobile phones (Android and iPhones): - Analyze and diagnose faults using AI-based tools - Identify basic hardware/software issues including SoC and RFFE modules - Perform basic chip-level repairs using SMT-compatible techniques - Conduct basic software updates, IMEI repair, and quality testing - Ensure compliance with ESD protocols and sustainability standards Repair and test tablets (Android and iPads): - Use diagnostic tools to identify faults in foldable, modular designs - Replace components and perform software rectifications - Conduct basic infrared-based chip-level diagnostics and OCA screen repairs - Test repaired devices and escalate unresolved issues	The job holder performs basic hardware and software repairs of handheld devices, laptops and mobile accessories, following standard procedures and using established tools and techniques. The role requires the knowledge of routine repair practices, including fault diagnosis and component replacement, within defined guidelines. It involves responsibility for completing tasks with minimal supervision, ensuring quality and compliance with safety and environmental standards. Therefore it has been assigned NSQF Level 4.	4.0

	Repair laptops (Windows/Mac) and mobile accessories: • Diagnose basic faults in laptops and accessories using Apple/Windows diagnostics • Replace basic components (RAM, battery, ports, etc.) • Repair chargers, earphones, and power banks at board-level • Ensure software compatibility, thermal safety, and post-repair functionality Sustainability practices in telecom operations: • Identify recyclable, reusable, and hazardous components • Follow safe handling and disposal protocols for e-waste • Use energy-efficient tools and lead-free soldering techniques • Maintain documentation and comply with environmental standards		
Professional and Technical Skills/ Expertise/ Professional Knowledge	• Ability to analyze, diagnose, and categorize basic faults in mobile phones, tablets, laptops, and accessories. • Understanding of key components such as SoC, RFFE, SMD, MOSFETs, and display modules. • Skilled in safe disassembly and reassembly of devices using specialized tools. • Knowledge of circuit analysis, soldering, and de-soldering techniques for chip-level repairs. • Proficiency in using diagnostic software, multimeters, and tools like JTAG, UART, and UFS interfaces. • Capable of performing software-related tasks such as firmware flashing, unlocking, and upgrades. • Familiarity with tools like ultrasonic cleaners, rework stations, hot air blowers, and LCD testers.	The role of a Handheld Devices (Mobile & Accessories) Technician fits NSQF Level 4 as it involves carrying out clearly defined tasks, such as basic diagnosis, repair, and testing of handheld devices, using a range of routine tools and procedures. The job holder applies theoretical and technical knowledge in a familiar context under limited supervision, with responsibility for work quality and adherence to safety and environmental norms.	4.0

	• Ability to follow ESD safety protocols, including the use of wrist straps, antistatic gloves, and mats. • Knowledge of sustainability practices including e-waste segregation, recycling, and safe disposal. • Skilled in identifying reusable components from discarded devices to optimize material usage. • Understanding of documentation practices for repair tracking, waste disposal, and compliance reporting. • Competence in ensuring adherence to industry quality and environmental standards during repair operations.		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Select and uses appropriate tools, techniques, and diagnostic procedures for effective repairs of mobile phones, tablets, laptops, and accessories. • Apply structured problem-solving to troubleshoot common faults and streamline repair processes to improve turnaround time. • Demonstrate customer service professionalism by clearly communicating repair processes and ensuring satisfaction. • Check and use inventory and spare parts efficiently to maintain continuous service delivery. • Adapt to advancements in chip-level repair and software tools, keeping up with emerging trends and technologies. • Identify business opportunities in refurbishing and reselling devices, and applies basic pricing, branding, and marketing strategies to promote services. • Comply with safety norms and sustainability practices, including e-waste segregation and disposal. • Cultivate an entrepreneurial approach to explore self-employment and small-scale business development in the repair sector.	The job role aligns with NSQF Level 4 as it involves applying a range of practical skills and basic theoretical knowledge to carry out repair tasks using established techniques. The technician works independently within defined parameters, demonstrates decision-making in routine work, and shows readiness for entrepreneurship by identifying opportunities and managing service operations effectively.	4.0
Broad Learning Outcomes/Core Skill	The Broad Learning Outcomes/Core Skill are: • Understand mobile, tablet, and laptop hardware/software fundamentals, including key components and operating systems. • Diagnose faults using standard diagnostic tools and	The role is appropriately placed at NSQF Level 4 as it requires the application of practical and theoretical knowledge to perform defined tasks like basic and chip-level repairs of handheld devices. The technician works independently within routine parameters, using tools and procedures to ensure functional and safe service delivery while also managing	4.0

	techniques across multiple devices. • Perform basic and chip-level repairs with precision, including soldering and use of specialized tools. • Follow SOPs for safe disassembly, reassembly, and ESD-compliant repairs. • Communicate effectively with customers regarding issues, costs, and timelines. • Maintain accurate documentation of repair processes, replaced parts, and service records. • Apply environmental and safety practices in handling e-waste and hazardous materials. • Demonstrate entrepreneurship, time management, and customer relationship skills to support independent or team-based service delivery.	customer communication, documentation, and sustainability practices.	
Responsibility	The responsibilities are: • Analyze, diagnose, and categorize faults in mobile phones, tablets, laptops, and accessories. • Prepare tools, components, and workstations for safe and efficient repair operations. • Repair and test mobile phones and tablets, including basic and chip-level components. • Perform software troubleshooting, firmware flashing, and hardware replacement. • Conduct post-repair testing to ensure device performance and quality standards. • Diagnose and repair laptops and mobile accessories using standard procedures. • Identify recyclable, reusable, and disposable components during and after repair. • Follow environmental standards and adopt sustainable repair and disposal practices. • Maintain accurate repair documentation and comply with workplace safety protocols.	This role fits NSQF Level 4 as it involves carrying out well-defined tasks such as fault diagnosis, basic hardware and software repairs, and chip-level servicing using established methods. The technician operates independently within set procedures, demonstrates responsibility for work quality and compliance, and applies practical knowledge to ensure reliable and environmentally responsible repair outcomes.	4.0

Annexure 2: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1.	Ultrasonic Cleaner Machine	Pieces	2
2.	Wrist Strap	Pieces	3
3.	Tweezers	Pieces	5
4.	Soldering Iron	Pieces	5
5.	Solder Wire	Pieces	5
6.	Soldering Flux	Pieces	5
7.	Screw Drivers	Pieces	5
8.	Rework Station	Pieces	3
9.	PCB Holder	Pieces	5
10.	Openers	Pieces	5
11.	Nose Plier	Pieces	5
12.	Multimeter	Pieces	3
13.	Matching Connector/Adaptors	Pieces	5
14.	LCD Tester	Pieces	3
15.	LCD Glass Separator	Pieces	3
16.	Jumper Wire	Pieces	5
17.	Hot Air Blower	Pieces	3
18.	DC Power Supply	Pieces	2
19.	Connecting Cables (for connecting smartphone/feature phones to PC/Laptop)	Pieces	3
20.	Cleaning Solution (e.g., IPA - Iso Propyl Alcohol)	Pieces	5
21.	Cleaning Brush	Pieces	5
22.	Battery Booster	Pieces	3
23.	Antistatic Gloves and Mats	Pieces	6

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
7. Duster

Annexure 3: 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.	Ibus Network and infrastructure Pvt.Ltd.	TK Narayanan	Deputy General Manager Commercial	7th Floor Tower B, Vatika Towers Golf Crouse Road Sector 54 Gurugram ,Haryana India 122011		tk.narayanan@ibusnetworks.com	
2.	ICAI Computer & IT Skill Enhancement Institute (ICSE)	Er. Kamaljeet Kumar Sharma	Managing Director	#2266 (Site No. 24), Phase 7/Sector 61, S.A.S Nagar (Mohali) 160062, Punjab (India)		contact@icseinstitute.com kksmhl@gmail.com	
3.	JRS Global Networks Pvt.Ltd.	Arvind Yadav	Asst. Account Manager Telecom	A 22, Sector-65 Noida, UP- 201307		account3@jrsgl.com	
4.	Expert Consultant & Coach for Telecom Fibre Optics, FTTx and Broadband	Dr. Anuj Shrivastava	Ex Executive Director Indian Telecom Services	Ghaziabad, UP		srianujkumar@gmail.com	
5.	Jio Platforms Limited (Jio)	Abhijay Singh Sisodia	Senior Manager	Office-101, Saffron, Nr.Centre Point, Panchwati 5 Rasta, Ambawadi, Ahmedabad-380006 Gujarat		abhijay.sisodia@ril.com	
6.	Vodafone India Shared Service Private Limited	Manmohan Sharma	Deputy General Manager	0-4th floor, Cluster D, Wing 3, EON Free Zone, Kharadi, Pune, Maharashtra 411014		manmohan.sharma@vodafone.com	
7.	Teoco	Naman Khosla Abhijay Singh Sisodia	Technical Consultant	Infotech Center -6th floor, 14/2 Old Delhi Gurgaon Road, Dundahera, Gurgaon – 122016, India		naman.khosla@teoco.com	
8.	Global Logic	Rashid Muhammad	Associate Manager	Plot No.7, Oxygen Business Park SEZ, Tower, 3, Noida-Greater		rashid.muhammad@globallogic.com	

				Noida Expy, Sector 144, Noida, Uttar Pradesh 201304			
9.	Mahendra Technical Institute	Mahendra Brmukh	Chairman and Managing Director	1st Floor, 3/B M B Classic, Telco Road, Near Kailash Dairy, Chinchwad Station, Pune - 411019 Maharashtra, India		info.mtipune@gmail.com	
10.	Amazon	Anshul Gupta	Program Manager	Bangalore		anshigu@amazon.com	
11.	Stealth Mode Startup Company	Avadh Gupta	Founder, Co-Founder & Investor	Pune		avadhmac@gmail.com	
12.	Ranitronics	Yakama Vijayasree Kumar	Founder & Technical Consultant	Villa 302, Namaha Rhythm, Road No. 1, Kavya Avenue, Bachupally, Hyderabad - 500090, Telangana		info@ranitronics.com	
13	Eco Works	Deepali Sinha Khetriwal	Founder & CEO	C-601, Kalpataru Regency Phase 1, Kalyani Nagar, Pune 411006		deepali@ecowork.international	
14	Himachal Futuristic Communications Limited (HFCL)	Amit Agarwal	VP PLM	8, Commercial Complex, Masjid Moth, Greater Kailash - 11, New Delhi - 110048, India		amit.agarwal@hfcl.com	
15	Tata Communication	Alka Asthana	Head of Regulatory Affairs	Next Gen Tower Outer Ring Road, GK-1, New Delhi - 110048		alka.asthanatelecom@gmail.com	
16	Reckitt Benckiser	Sachin Sharma	Demand Manager	Udyog Vihar, Phase V, Gurgaon, Haryana		sachin.sharma@rb.com	
17	Sycamore Informatics	Rahul Kumar Kaushik	Product Manager	No. 6, 2nd Floor, 2nd Main, Arekere, Off Bannerghatta Road, Bangalore 560076		rahul.kaushik@sycamoreinformatics.com	
18	Nokia	Saurabh Singh	Software Quality Engineer	L5 and L6 Building Manyata Embassy Business Park Outer Ring Road, Nagawara 560045		saurabh.9.singh@nokia.com	

19	Edge Telecom	Arun Singh	Senior Project Engineer	9th floor, ILD Trade Centre, 904, main, Badshahpur Sohna Rd Hwy, near Subhash Chowk, Gurugram, Haryana 122018		arun.singh@edgetelecom.org	
20	Conduent	Prince Jain	Sr. Business Analyst	Plot No. 20, Candor Tech Space, Noida 201304		prince.jain@conduent.com	
21	Artificial Intelligence Technologies	Rohit Kumar Sharma	Manager – Development	A-21, sector 4, Block A, Kailash Colony, Greater Kailash, New Delhi,		rohit.sharma@aituniversal.com	
22	Ecom Express.in	Shekhar Poswal	Senior QA L1	10 th Floor, Ambience Corporate Tower II, Ambience Island, Gurugram 122001		Shekhar.p@ecomexpress.in	
23	Paarminder Electronics Process Consultancy	Paarminder Singh	Consultant	New Delhi		singhpaarminder@gmail.com	
24	Senryaku Consulting	Udit Kaushik	Co-founder	Senryaku Management Private Limited Address: UTC031, DLF The Ultima, Sector 81, Gurugram, HR 122004		udit.kau@gmail.com	
25	Sopra Steria	Rikan Singh Tomar	Team Leader	Plot No. 20 & 21, Seaview Special Economic Zone, Building 4, Sector 135, Noida, Uttar Pradesh 201304		rikan.singh@soprasteria.com	

Annexure 4: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2025	9370	6560	465	465	465	465
2026	9370	6560	465	465	465	465
2027	12500	8750	625	625	625	625

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
4.0	Dec 2021 to March 2022	7180	5715	4938									
4.0	April 2022 to March 2023	8088	6632	5349									
4.0	April 2023 to March 2024	4828	4391	3824									
4.0	April 2024 to March 2025	5938	4052	3598									

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:

Annexure 5: 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	LMS Portal- TSSC Telco Learning Portal will be utilized with online content/virtual lectures (Telcolearning.com)	100:100
2	☒ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	LMS Portal- TSSC Telco Learning Portal will be utilized with online content/virtual lectures (Telcolearning.com)	100:100
3	☐ Showing Practical Demonstrations to the learners		
4	☐ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training		
5	☐ Tutorials/ Assignments/ Drill/ Practice		
6	☐ Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7	☐ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training		

Annexure 6: 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
TEL/N2213: Perform basic hardware and software repair	Analyze, diagnose, and categorize faults	10	16	-	6
	PC1.collect faulty handheld devices from customer care/front-end executives and document reported issues	1	2	-	0.5

of Android mobile phones and iPhones	PC2.use AI-enabled diagnostic tools to analyze hardware and software faults, including issues in Android and iOS System on Chip (SoC)	1	2	-	0.5
	PC3.diagnose hardware and software issues in mobile phones, including charging circuits motherboards, processors, touchscreens, and IoT modules, using tools such as multimeters, SMD testers, JTAG, and UART	1	2	-	1
	PC4.diagnose basic faults in technologies, such as Universal Flash Storage (UFS) programming and Radio Frequency Front-End (RFFE) modules, using schematic diagrams and specialized tools	1	2	-	0.5
	PC5.conduct component-level diagnostics to determine root causes of faults in processors, integrated circuits, and chips	0.5	2	-	0.5
	PC6.prioritize and plan repair activities based on Service Level Agreements (SLAs) and supervisor's directions	0.5	1	-	0.5
	PC7.identify hardware and software issues using real-time diagnostic tools, including faults in foldable screens and modular designs	1	1	-	0.5
	PC8.document the identified issues, including those related to Android and iOS mobile operating systems, cloud storage, and device protection systems	1	1	-	0.5
	PC9.identify required parts and their availability, escalating shortages for procurement	1	1	-	0.5
	PC10.estimate the repair cost, ensuring it is within the Beyond Economic Repair (BER) cost, and communicate this to the customer along with repair or replacement requirements	1	1	-	0.5
	PC11.record repair options under supervisor's guidance, considering repair feasibility, cost, and customer preferences	1	1	-	0.5
	<i>Prepare for repairing mobile phones</i>	<i>5</i>	<i>8</i>	<i>-</i>	<i>4</i>
	PC12.collect necessary tools, including SMT rework stations, hot air guns, UMT dongles, infrared preheaters, and other energy-efficient tools	1	2	-	1
	PC13.ensure the repair bench is clean, dust-free, and adheres to Electrostatic Discharge (ESD) protocols	0.5	1	-	0.5
	PC14.calibrate diagnostic and repair equipment as per manufacturer's specifications	0.5	1	-	0.5
	PC15.verify the availability and readiness of environmentally sustainable repair stations, including lead-free soldering tools	1	2	-	1
	PC16.back up user data securely using authorized methods, ensuring compatibility with cloud storage platforms	1	1	-	0.5

PC17.ensure compliance with safety protocols while handling devices with foldable screens or modular designs	1	1	-	0.5
<i>Repair and test mobile phones</i>	<i>5</i>	<i>8</i>	<i>-</i>	<i>3</i>
PC18. dismantle the mobile phone systematically to avoid collateral damage	1	2	-	0.5
PC19. replace or repair components as per manufacturer's specifications and 5G/IoT compatibility standards	0.5	1	-	0.5
PC20. conduct software updates or rectifications, including flashing and IMEI repairs, using updated tools like Miracle Box or UMT dongle	1	2	-	0.5
PC21. test the repaired device using appropriate diagnostic tools to ensure functionality and quality standards	1	1	-	0.5
PC22. test RFFE modules for signal integrity and troubleshoot connectivity issues	1	1	-	0.5
PC23. document repair details, including replaced components and quality checks performed	0.5	1	-	0.5
<i>Perform basic chip-level repairs</i>	<i>5</i>	<i>10</i>	<i>-</i>	<i>4</i>
PC24.disassemble the mobile phone using manufacturer-approved tools and schematic diagrams for guidance	1	2	-	0.5
PC25.use hot air gun and infrared preheater or SMT rework station for preheating PCBs and component placement	0.5	2	-	0.5
PC26.use SMT-compatible repair techniques for diagnosing or repositioning components including chips, ensuring minimal heat damage	1	1	-	0.5
PC27.repair or repair faulty modules such as processors, Integrated Circuits (IC), electromagnetic coils, and IoT modules using precision tools and schematic diagrams	0.5	1	-	0.5
PC28.perform screen repairs using OCA lamination machines and bubble removers for foldable and curved displays	0.5	1	-	0.5
PC29.conduct appropriate testing of repaired components using oscilloscopes, JTAG, and UART to ensure functionality	0.5	1	-	0.5
PC30.ensure proper soldering and cleaning of PCBs, removing solder residues to maintain device integrity	0.5	1	-	0.5
PC31.adhere to safety and environmental standards, including proper e-waste disposal for faulty components	0.5	1	-	0.5
<i>Perform post-repair activities</i>	<i>5</i>	<i>8</i>	<i>-</i>	<i>3</i>

	PC32. verify the repaired device's performance to ensure no residual faults	1	2	-	1
	PC33. return repaired devices to authorized personnel and notify relevant teams about repair completion	1	2	-	0.5
	PC34. dispose of e-waste in compliance with recycling and environmental regulations	1	2	-	0.5
	PC35. clean and organize the repair bench, ensuring tools and equipment are returned in working condition	1	1	-	0.5
	PC36. maintain records of repair activities, including timelines, complaint details, and replaced components	1	1	-	0.5
	Total Marks	30	50	-	20
TEL/N2214: Perform basic hardware and software repair of Android tablets and iPads	<i>Perform pre-repair activities</i>	<i>10</i>	<i>15</i>	<i>-</i>	<i>6</i>
	PC1.collect faulty tablets from customer care or front-end executives and record the faults reported by the customer	1	2	-	1
	PC2.determine the repair specifics, including delivery deadlines and special requests	1	2	-	0.5
	PC3.use AI-enabled diagnostic tools to identify hardware or software issues, including Android and iOS SoC and RFFE modules, along with appropriate solutions	1	2	-	0.5
	PC4.check the availability of replacement components at the store or order from authorized service centers	1	2	-	0.5
	PC5.retrieve replacement or repair parts from inventory and verify their compatibility	1	1	-	0.5
	PC6.check the availability of tools such as SMT rework stations, infrared heaters, and diagnostic dongles (UMT, 3uTools)	1	1	-	0.5
	PC7.prepare tools including SMT-compatible kits and infrared rework stations for minor chip-level diagnostics	0.5	1	-	0.5
	PC8.inspect and prepare the repair area to ensure a clean, dust-free environment	0.5	1	-	0.5
	PC9.verify calibration of diagnostic tools like oscilloscopes, JTAG, and UART interfaces	1	1	-	0.5
	PC10.ensure the availability of lead-free soldering tools and energy-efficient repair stations	1	1	-	0.5
	PC11.implement Electrostatic Discharge (ESD) precautions before commencing repairs	1	1	-	0.5
	<i>Repair and test tablets</i>	<i>10</i>	<i>15</i>	<i>-</i>	<i>6</i>

PC12.back up user data using secure and authorized mechanisms for both Android and iOS, ensuring compatibility with cloud storage or iTunes/Finder	1	2	-	1
PC13.dismantle devices following manufacturer specifications and organizational guidelines	1	2	-	0.5
PC14.test and diagnose faults in processors, motherboards, integrated circuits, and foldable screens	1	2	-	0.5
PC15.replace non-soldered components (e.g., battery, screen, ports) or modular units for 5G-enabled and IoT-integrated tablets	1	2	-	0.5
PC16.perform SMT-based repair procedures, where applicable, avoiding full chip rework	1	1	-	0.5
PC17.assemble tablets as per specifications, ensuring modular components are fitted correctly	1	1	-	0.5
PC18.perform software repairs such as flashing, unlocking, and system updates using UMT tools for Android and iTunes/3uTools for iOS	1	1	-	0.5
PC19.utilize service manuals, schematics, block diagrams, and troubleshooting guides effectively	1	1	-	0.5
PC20.conduct infrared-based repairs for chipsets and ensure thermal management during reassembly	1	1	-	0.5
PC21.test repaired devices using specialized diagnostic tools to validate functionality, including RFFE module diagnostics	0.5	1	-	0.5
PC22.escalate unresolved issues to supervisors for timely resolution	0.5	1	-	0.5
<i>Perform chip-level repairs</i>	<i>7</i>	<i>14</i>	-	<i>5</i>
PC23.determine chip-level issues with the tablet by examining various sections, such as charging ports, motherboards, touchpads, and screens, using tools like multimeters and SMD testers	1	2	-	0.5
PC24.open the outer casing and identify connectors to remove the motherboard	1	2	-	0.5
PC25.preheat PCBs using hot air guns and remove defective components with precision	1	2	-	0.5
PC26.follow manufacturer-approved block diagrams and schematics while disassembling	1	2	-	0.5
PC27.preheat PCBs using infrared heaters or hot air guns before diagnostics or repositioning components	0.5	1	-	0.5
PC28.replace faulty modules (e.g. display ICs, simple capacitors) in line with Android or iOS design guidelines	0.5	1	-	0.5

	PC29.use SMT-compatible techniques to reposition or reflow parts	0.5	1	-	0.5
	PC30.use tools like OCA lamination machines and bubble removers for screen repairs	0.5	1	-	0.5
	PC31.test the replaced modules to ensure optimal functionality and resolve any residual faults	0.5	1	-	0.5
	PC32.document chip-level repairs and escalate complex issues to senior technicians or engineers	0.5	1	-	0.5
	<i>Perform post-repair activities</i>	<i>3</i>	<i>6</i>	-	<i>3</i>
	PC33.test and verify the effectiveness of repairs using appropriate tools	0.5	1	-	0.5
	PC34.ensure the device is damage-free after repair and meets applicable quality standards	0.5	1	-	0.5
	PC35.return repaired devices to authorized personnel	0.5	1	-	0.5
	PC36.return tools and equipment to the store, ensuring cleanliness and functionality	0.5	1	-	0.5
	PC37.clean the repair station, ensuring no loose parts or screws are left behind	0.5	1	-	0.5
	PC38.dispose of defective components following proper e-waste recycling methods	0.5	1	-	0.5
	Total Marks	30	50	-	20
TEL/N2218: Perform basic hardware and software repair of Windows laptops, MacBook, and mobile accessories	<i>Diagnose faults</i>	<i>9</i>	<i>15</i>	-	<i>5</i>
	PC1.collect faulty laptops and mobile accessories from customers and document reported issues	2	3	-	1
	PC2.use diagnostic tools to identify hardware and software faults in Windows and macOS laptops, and mobile accessories	2	3	-	1
	PC3.test power supply, battery health, connectivity ports, and display for performance issues	2	3	-	1
	PC4.identify common faults in accessories such as broken connectors, short circuits, and charging failures	1	2	-	1
	PC5.identify and document root causes using service manuals, schematic diagrams, and tools such as Apple Diagnostics, Windows Memory Diagnostic, or relevant third-party apps	1	2	-	0.5
	PC6.estimate repair costs and provide repair or replacement recommendations to customers	1	2	-	0.5
	<i>Perform laptop repairs</i>	<i>8</i>	<i>15</i>	-	<i>6</i>

PC7.dismantle the laptop systematically, following manufacturer guidelines to ensure no collateral damage	2	3	-	1
PC8.replace/repair basic hardware components such as RAM, SSD/HDD, keyboard, screen, battery, cooling fans, or I/O ports	2	3	-	1
PC9.perform software installations and updates using tools such as macOS Recovery/Internet Recovery, Windows PE, or OEM recovery tools	1	2	-	1
PC10.apply thermal paste and replace thermal pads or fans for optimal cooling system maintenance	1	3	-	1
PC11.test wireless and connectivity modules (Wi-Fi, Bluetooth) for proper functioning	1	2	-	1
PC12.reassemble laptops as per manufacturer guidelines and perform appropriate functionality checks	1	2	-	1
<i>Repair mobile accessories</i>	<i>7</i>	<i>10</i>	-	<i>5</i>
PC13.open and inspect accessories like chargers, earphones, and power banks using ESD-safe tools	2	2	-	1
PC14.repair or replace damaged connectors, broken wiring, and faulty charging circuits	2	2	-	1
PC15.test and replace basic components such as batteries, fuses, resistors, or ICs using SMT-compatible techniques	1	2	-	1
PC16.use infrared preheaters or hot air rework stations for minor board repairs	1	2	-	1
PC17.test repaired accessories to ensure electrical safety and functional compliance	1	2	-	1
<i>Perform post-repair activities</i>	<i>6</i>	<i>10</i>	-	<i>4</i>
PC18.clean and organize the workbench, ensuring tools are stored properly	2	3	-	1
PC19.perform quality checks on repaired laptops and mobile accessories using built-in and external diagnostic tools to ensure complete functionality	2	3	-	1
PC20.segregate and dispose of e-waste and non-repairable parts as per environmental regulations	1	2	-	1
PC21.document all repairs, including parts replaced, service duration, and customer feedback	1	2	-	1
Total Marks	30	50	-	20
<i>Identify recyclable, reusable, and disposable components</i>	<i>8</i>	<i>15</i>	-	<i>5</i>

TEL/N9108: Follow sustainability practices in telecom operations	PC1. identify telecom components that can be recycled, refurbished, or reused during repair and maintenance	2	3	-	1
	PC2. sort materials into recyclable, reusable, and hazardous waste categories	2	3	-	1
	PC3. examine faulty components for potential refurbishment and document findings	2	3	-	1
	PC4. label and segregate hazardous materials for specialized disposal	1	3	-	1
	PC5. evaluate dismantled parts to determine their suitability for recycling or safe disposal	1	3	-	1
	<i>Adhere to environmental standards</i>	6	15	-	5
	PC6. follow guidelines for safe handling, storage, and disposal of hazardous and non-hazardous materials	2	3	-	1
	PC7. maintain compliance with environmental regulations relevant to e-waste management	1	3	-	1
	PC8. record all e-waste disposal and recycling activities as per company policies	1	3	-	1
	PC9. use protective equipment when handling hazardous waste to prevent environmental contamination	1	3	-	1
	PC10. conduct regular audits of waste management processes to ensure alignment with sustainability standards	1	3	-	1
	<i>Follow sustainable repair practices</i>	8	10	-	5
	PC11. use repair techniques that minimize waste generation and energy consumption	2	2	-	1
	PC12. select energy-efficient and eco-friendly spare parts for repairs	2	2	-	1
	PC13. optimize material usage by reusing functional components from discarded devices	2	2	-	1
	PC14. minimize the use of single-use materials during maintenance and repair tasks	1	2	-	1
	PC15. diagnose faults accurately to avoid unnecessary replacements	1	2	-	1
	<i>Comply with sustainability protocols</i>	8	10	-	5
	PC16. follow organizational sustainability policies during repair and maintenance activities	2	2	-	1
	PC17. coordinate with certified recyclers for responsible disposal of non-recyclable waste	2	2	-	1

	PC18. ensure proper documentation of waste transfer to recycling or disposal agencies	2	2	-	1
	PC19. participate in training programs on environmental conservation and sustainability	1	2	-	1
	PC20. promote awareness of sustainable practices among team members and stakeholders	1	2	-	1
	Total Marks	30	50	-	20
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.	-	-	-	-
	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	-	-	-	-
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		180	230	-	80

Annexure 7: 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 SDSM/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 levels 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
- Center 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

The trainee will be tested for the acquired skill, knowledge and attitude through formative/ summative assessment at the end of the course and as this NOS and MC is adopted across sectors and qualifications, the respective AB can conduct the assessments as per their requirements.

NSQC Approved

Annexure 8: 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
TSSC	Telecom Sector Skill Council
TRAI	Telecom Regulatory Authority of India
AI	Artificial Intelligence
SoC	System on Chip
RFFE	Radio Frequency Front-End
SMD	Surface-Mount Device
JTAG	Joint Test Action Group
UART	Universal Asynchronous Receiver-Transmitter
UFS	Universal Flash Storage
UMT	Ultimate Multi Tool
SLAs	Service Level Agreements
ESD	Electrostatic Discharge
BER	Beyond Economic Repair
TAT	Turnaround Time
OCA	Optically Clear Adhesive
RCA	Root Cause Analysis
PDCA	Plan-Do-Check-Act
MOSFETs	Metal-Oxide-Semiconductor Field-Effect Transistors
RAM	Random Access Memory
SSD	Solid State Drive
HDD	Hard Disk Drive

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define 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

NSQC Approved