

QUALIFICATION FILE

Telecom E-Waste Handler

☒ 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

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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..... 6

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..... 8

 Annexure 2: Tools and Equipment (Lab Set-Up) 12

 Annexure 3: Industry Validations Summary..... 13

 Annexure 4: Training & Employment Details 17

 Annexure 5: Blended Learning 18

 Annexure 6: Detailed Assessment Criteria 18

 Annexure 7: Assessment Strategy..... 21

 Annexure 8: Acronym and Glossary 23

Section 1: Basic Details

1.	Qualification Name	Telecom E-Waste Handler																			
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, V3.0)	Qualification Name of existing/previous version: Telecom E-Waste Handler																		
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-04074-2025-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 Telecom E-Waste Handler operates as a micro-entrepreneur, establishing and managing telecom e-waste collection and aggregation centers. They ensure safe handling, segregation, and secure transportation for further processing while promoting sustainable disposal practices. The individual collaborates with stakeholders and utilizes advanced technologies to enhance operational efficiency and regulatory compliance.																			
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 the 3-year diploma after 10th in relevant field*</td> <td></td> </tr> <tr> <td>3.</td> <td>10th Grade Pass</td> <td>3 years of experience in e-waste management</td> </tr> <tr> <td>4.</td> <td>Previous relevant Qualification of NSQF Level 3.0</td> <td>3 years of experience in e-waste management</td> </tr> <tr> <td>5.</td> <td>Previous relevant Qualification of NSQF Level 3.5</td> <td>1.5 years of experience in e-waste management</td> </tr> </tbody> </table>		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	12th Grade Pass		2.	Completed 2nd year of the 3-year diploma after 10th in relevant field*		3.	10th Grade Pass	3 years of experience in e-waste management	4.	Previous relevant Qualification of NSQF Level 3.0	3 years of experience in e-waste management	5.	Previous relevant Qualification of NSQF Level 3.5	1.5 years of experience in e-waste management
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																			
1.	12th Grade Pass																				
2.	Completed 2nd year of the 3-year diploma after 10th in relevant field*																				
3.	10th Grade Pass	3 years of experience in e-waste management																			
4.	Previous relevant Qualification of NSQF Level 3.0	3 years of experience in e-waste management																			
5.	Previous relevant Qualification of NSQF Level 3.5	1.5 years of experience in e-waste management																			

		*Environmental Engineering/ Electrical and Electronics Engineering/ Waste Management Technology/ Industrial Safety and Environment																						
		b. Age: NA																						
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	14	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>120</td><td>150</td><td>150</td><td></td><td>420</td></tr> <tr> <td>Online</td><td>120</td><td></td><td></td><td></td><td></td></tr> </tbody> </table>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	120	150	150		420	Online	120				
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																			
Classroom (offline)	120	150	150		420																			
Online	120																							
		(Refer Blended Learning Annexure for details)																						
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/9611.0201																						
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Telecom E-Waste Handler (NSQF Level 4) → Telecom E-waste Facility In-charge (NSQF Level 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: Motor Impairment, Hearing Impairments, Speech and Language Disorders																						
19.	How Participation of Women will be Encouraged	Encouraging the participation of women in the role of Telecom E-Waste Handler 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 <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: Mr. Praveen Sirohi Email: ceo@tsscindia.com Website: www.tsscindia.com	Contact No.: 0124-4148029
23.	Final Approval Date by NSQC: 08-05-2025	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 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.	Undertake telecom e-waste collection, handling, and disposal operations	TEL/N2401, v4.0	Core	4.0	12	80	130	150	-	360	30	50	-	20	100	75
2.	Follow sustainability practices in telecom operations	TEL/N9108, v1.0	Core	4.0	1	10	20	-	-	30	30	50	-	20	100	15
3.	Employability Skills (30 Hours)	DGT/VSQ/N 0101, v1.0	Non-Core	2.0	1	30	-	-	-	60	20	30	-	-	50	10
Duration (in Hours) / Total Marks					14	120	150	150	-	420	80	130	-	40	250	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 NCVT 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 Telecom or Retail Domain.
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		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) <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 Telecom or Retail Domain. 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 <i>(If “Yes”, details to be provided in Annexure)</i>
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) <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 6 years of experience after Graduation in Telecom or Retail Domain. 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) <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 6 years of experience after Graduation in Telecom or Retail Domain. 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 Telecom or Retail Domain. 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: 3240
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 <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	NA
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	<i>Annexure 8</i>
8.	Supporting Document: Model Curriculum <i>(Mandatory – Public view)</i>	<i>Attached</i>
9.	Supporting Document: Career Progression <i>(Mandatory - Public view)</i>	<i>Attached</i>
10.	Supporting Document: Occupational Map <i>(Mandatory)</i>	<i>Attached</i>
11.	Supporting Document: Assessment SOP <i>(Mandatory)</i>	<i>Attached</i>
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	Set up and operate a telecom e-waste collection and handling centre - Understanding the value and impact of different electronic waste streams - Identifying and collecting telecom e-waste - Segregating and handling telecom e-waste with safety precautions - Set up and oversee telecom e-waste management facilities - Handle e-waste with safety and standardized precautions - Building and maintaining partnerships with stakeholders Follow sustainability practices in telecom operations - Identify recyclable, reusable, and disposable components - Adhere to environmental standards - Follow sustainable repair practices - Comply with sustainability protocols	A Telecom E-Waste Handler at NSQF Level 4 manages the collection, segregation, and safe handling of telecom e-waste while ensuring compliance with India's E-Waste (Management) Rules, 2022 and international standards. Key responsibilities include identifying and collecting e-waste, overseeing facility operations, and using advanced technologies for sorting and inventory management. The role also involves building partnerships with stakeholders to expand e-waste networks and promote sustainable practices. Sustainability is central to the role, requiring the identification of recyclable, reusable, and disposable components, adherence to environmental regulations, and the implementation of sustainable repair and disposal practices. With expertise in e-waste management and regulatory compliance, the Telecom E-Waste Handler ensures safe, efficient, and environmentally responsible operations.	4.0
Professional and Technical Skills/ Expertise/ Professional Knowledge	- Know the value chain of telecom and non-telecom electronic products, including the recovery potential of valuable materials like rare earth metals. - Understand the environmental and health risks associated with improper handling, storage, and disposal of telecom e-waste. - Know how to identify, collect, and segregate telecom e-waste from various sources while ensuring compliance with regulatory standards. - Understand the principles of circular economy practices, including the 3Rs (Reduce, Reuse, Recycle), and their	A Telecom E-Waste Handler at NSQF Level 4 manages, segregates, and oversees the safe disposal of telecom electronic waste. Key responsibilities include identifying, collecting, and classifying e-waste, ensuring compliance with environmental regulations, and maintaining stakeholder partnerships. The role requires expertise in setting up e-waste facilities, following safety protocols, and adopting sustainability practices like recycling and responsible disposal. With technical proficiency and regulatory knowledge, Telecom E-Waste Handlers ensure efficient operations while minimizing environmental impact.	4.0

	application in telecom e-waste management. • Know how to set up and manage telecom e-waste facilities, including infrastructure planning, procurement of advanced tools, and implementing safety protocols. • Understand India's E-Waste (Management) Rules, 2022, the Basel Convention, and other applicable national and international regulations for e-waste handling. • Know how to classify hazardous and non-hazardous e-waste and apply appropriate handling, storage, and disposal methods. • Understand advanced technologies such as AI-driven inventory systems and automated sorting machines used for e-waste management. • Know how to implement tracking mechanisms to monitor the flow of e-waste from collection to recycling or disposal. • Understand the importance of workplace hygiene, Personal Protective Equipment (PPE) usage, and emergency response protocols during e-waste handling. • Know how to build and maintain partnerships with telecom operators, government bodies, and recycling companies to enhance e-waste collection and disposal. • Understand financial management principles, including business planning, budgeting, and optimizing costs for a telecom e-waste centre. • Know how to promote sustainable practices and raise awareness of responsible e-waste disposal through communication channels like digital platforms and community outreach. • Understand the logistics and supply chain processes required for the efficient collection, transportation, and secure storage of telecom e-waste.		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Design effective telecom e-waste management processes to ensure compliance with environmental standards. • Develop strategies for sustainable e-waste collection, segregation, and safe disposal.	Employment readiness and entrepreneurship skills for a Telecom E-Waste Handler focus on designing efficient e-waste management processes, developing sustainable practices, and ensuring regulatory compliance. Technicians must manage operations, apply safety protocols, and	4.0

	- Define best practices for handling, storing, and managing hazardous telecom waste materials. - Demonstrate the ability to identify, classify, and safely manage telecom e-waste streams. - Apply industry guidelines to establish and operate a telecom e-waste management facility. - Create partnerships with stakeholders to enhance e-waste collection and recycling efficiency. - Select appropriate tools and techniques for safe handling, dismantling, and disposal of telecom equipment. - Implement sustainable practices to reduce environmental impact and ensure regulatory compliance. - Manage day-to-day operations of a telecom e-waste facility, including safety protocols and quality standards.	collaborate with stakeholders to enhance collection and recycling efforts. Skills in selecting appropriate tools, optimizing workflows, and maintaining quality control are essential. The role also emphasizes creating business opportunities, building partnerships, and implementing sustainable strategies. This NSQF Level 4 role highlights technical proficiency, operational management, and entrepreneurial readiness in the telecom e-waste sector.	
Broad Learning Outcomes/Core Skill	The Broad Learning Outcomes/Core Skill are: - Demonstrate effective communication, teamwork, and problem-solving skills in telecom e-waste management. - Apply critical thinking to diagnose faults, analyze e-waste streams, and implement sustainable practices. - Interpret technical manuals, safety guidelines, and environmental regulations accurately. - Manage time efficiently, prioritize tasks, and optimize workflow processes. - Adapt to evolving technologies and industry best practices for e-waste handling. - Implement quality control measures to ensure compliance with environmental and safety standards. - Maintain accurate records, documentation, and reporting for e-waste management operations. - Foster collaboration with stakeholders to enhance operational efficiency and sustainability.	The Telecom E-Waste Handler role at NSQF Level 4 requires technical expertise to diagnose, repair, and maintain mobile devices and laptops. Responsibilities include fault identification, chip-level repairs, and post-repair testing while ensuring safety and compliance with industry standards. Technicians use specialized tools, communicate effectively with customers, and maintain accurate documentation. The role emphasizes time management, e-waste handling, and sustainable practices, focusing on hands-on expertise, systematic troubleshooting, and adherence to technical and environmental standards.	4.0

Responsibility	The responsibilities are: - Understanding the value and impact of different electronic waste streams - Identifying and collecting telecom e-waste - Segregating and handling telecom e-waste with safety precautions - Set up and oversee telecom e-waste management facilities - Handle e-waste with safety and standardized precautions - Building and maintaining partnerships with stakeholders - Identify recyclable, reusable, and disposable components - Adhere to environmental standards - Follow sustainable repair practices - Comply with sustainability protocols	A Telecom E-Waste Handler operates as a micro-entrepreneur, establishing and managing telecom e-waste collection and aggregation centers. They ensure safe handling, segregation, and secure transportation for further processing while promoting sustainable disposal practices. The individual collaborates with stakeholders and utilizes advanced technologies to enhance operational efficiency and regulatory compliance.	4.0
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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.	Electronic waste - Handset (Feature phone & Smartphone), Harddisk (SATA , ATA),CD -ROM, Mouse, Keyboard,PIU,SMPS)	Pieces	7
2.	Hand Tool Kit (Screwdriver, Cable Strippers, Cable Crimpers, Cable cleaner)	Pieces	5
3.	Safety Equipment (Hand Gloves, ESD safety kit, Eye protection Glasses)	Pieces	5
4.	Cleaning Solution (e.g., IPA - Iso Propyl Alcohol)	Pieces	5
5.	Cleaning Brush	Pieces	5
6.	Antistatic Gloves and Mats	Pieces	10

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,		abhijay.sisodia@ril.com	

				Ambawadi, Ahmedabad- 380006 Gujarat			
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 Noida Expy, Sector 144, Noida, Uttar Pradesh 201304		rashid.muhammad@globallogic.com	
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,		info@ranitronics.com	

				Bachupally, Hyderabad - 500090, Telangana			
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,		arun.singh@edgetelecom.org	

				Gurugram, Haryana 122018			
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		rikan.singh@soprasteria.com	

				Pradesh 201304			
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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	970	680	48	48	48	48
2026	970	680	48	48	48	48
2027	1300	910	65	65	65	65

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	Dec 2021 to March 2022	436	383	383									
3.0	April 2022 to March 2023	-	-	-									
3.0	April 2023 to March 2024	-	-	-									
3.0	April 2024 to March 2025	2150	1549	1526									

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
	<i>Assess the value and hazards of telecom e-waste streams</i>	6	10	-	5

TEL/N2401: Undertake telecom e-waste collection, handling, and disposal operations	PC1. classify telecom and non-telecom e-waste based on material composition and potential for reuse or recycling	2	2	-	1
	PC2. identify valuable and hazardous components in different types of telecom e-waste	1	2	-	1
	PC3. apply circular economy practices, including segregation for reuse, refurbishment, and recycling	1	2	-	1
	PC4. communicate the benefits of responsible e-waste management to stakeholders using posters, digital platforms, and community outreach	1	2	-	1
	PC5. follow legal requirements and safety guidelines for handling and storing telecom e-waste	1	2	-	1
	<i>Identify, collect, and transport telecom e-waste</i>	6	10	-	4
	PC6. identify key sources and generators of telecom e-waste, such as service providers, retailers, and consumers	2	3	-	1
	PC7. select and use appropriate transport options for collecting and transporting telecom e-waste, ensuring compliance with safety regulations	1	2		1
	PC8. use the necessary Personal Protective Equipment (PPE) while handling and transporting telecom e-waste to prevent exposure to hazardous materials	2	3	-	1
	PC9. maintain documentation and records of collected e-waste, including source details, weight, and classification	1	2	-	1
	<i>Segregate and handle telecom e-waste safely</i>	8	10	-	5
	PC10. use appropriate tools and equipment to dismantle and segregate telecom e-waste	2	2	-	1
	PC11. categorize the collected telecom e-waste based on type, condition, and value for reuse or recycling	2	2	-	1
	PC12. follow operational procedures for systematic segregation of reusable, recyclable, and hazardous components	1	2	-	1
	PC13. adhere to workplace safety protocols, including proper usage of PPE and hazard containment measures	1	2	-	1
	PC14. label and package different categories of segregated e-waste for further processing or disposal	1	1	-	0.5
	PC15. store hazardous e-waste securely to prevent environmental contamination or health risks	1	1		0.5
	<i>Establish and manage a telecom e-waste collection and handling centre</i>	10	20	-	6
	PC16. identify legal and compliance requirements for establishing a telecom e-waste collection and handling centre	2	3	-	1
	PC17. arrange necessary infrastructure, including storage, weighing, labeling equipment	2	3	-	1
	PC18. implement workplace hygiene and sanitation measures to maintain a safe working environment	2	3	-	1
	PC19. develop an inventory system to track telecom e-waste inflow and outflow efficiently	1	3	-	1
	PC20. organize and optimize secure storage facilities for collected telecom e-waste	1	3	-	1
	PC21. monitor financial performance, track operational costs, and identify revenue opportunities	1	3		0.5

	PC22. recruit and train personnel in waste handling, safety procedures, and customer interaction	1	2	-	0.5
	Total Marks	30	50	-	20
TEL/NXXXX: Follow sustainability practices in telecom operations	<i>Identify recyclable, reusable, and disposable components</i>	<i>8</i>	<i>15</i>	<i>-</i>	<i>5</i>
	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>	<i>6</i>	<i>15</i>	<i>-</i>	<i>5</i>
	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>	<i>8</i>	<i>10</i>	<i>-</i>	<i>5</i>
	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>	<i>8</i>	<i>10</i>	<i>-</i>	<i>5</i>
	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/N0101: Employability Skills (30 Hours)	<i>Introduction to Employability Skills</i>	<i>1</i>	<i>1</i>	<i>-</i>	<i>-</i>
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
	<i>Constitutional values – Citizenship</i>	<i>1</i>	<i>1</i>	<i>-</i>	<i>-</i>

PC2.	identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
	<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3.	explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
	<i>Basic English Skills</i>	2	3	-	-
PC4.	speak with others using some basic English phrases or sentences	-	-	-	-
	<i>Communication Skills</i>	1	1	-	-
PC5.	follow good manners while communicating with others	-	-	-	-
PC6.	work with others in a team	-	-	-	-
	<i>Diversity & Inclusion</i>	1	1	-	-
PC7.	communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8.	report any issues related to sexual harassment	-	-	-	-
	<i>Financial and Legal Literacy</i>	3	4	-	-
PC9.	use various financial products and services safely and securely	-	-	-	-
PC10.	calculate income, expenses, savings etc.	-	-	-	-
PC11.	approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
	<i>Essential Digital Skills</i>	4	6	-	-
PC12.	operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13.	use internet and social media platforms securely and safely	-	-	-	-
	<i>Entrepreneurship</i>	3	5	-	-
PC14.	identify and assess opportunities for potential business	-	-	-	-
PC15.	identify sources for arranging money and associated financial and legal challenges	-	-	-	-
	<i>Customer Service</i>	2	2	-	-
PC16.	identify different types of customers	-	-	-	-
PC17.	identify customer needs and address them appropriately	-	-	-	-
PC18.	follow appropriate hygiene and grooming standards	-	-	-	-
	<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19.	create a basic biodata	-	-	-	-
PC20.	search for suitable jobs and apply	-	-	-	-
PC21.	identify and register apprenticeship opportunities as per requirement	-	-	-	-
	Total Marks	20	30	-	-
	Grand Total	80	130	-	40

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.

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
E-Waste	Electronic Waste
PPE	Personal Protective Equipment

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