

QUALIFICATION FILE

Telecom Field Operations Coordinator

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

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

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

NCrF/NSQF Level: 5.0

Submitted By:

Telecom Sector Skill Council

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

Email: tssc@tsscindia.com

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Section 1: Basic Details

1.	Qualification Name	Telecom Field Operations Coordinator														
2.	Sector/s	Telecom														
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: (QG-05-TL-00460-2023-V1.1-TSSC, V3.0)	Qualification Name of existing/previous version: Field Management Engineer													
4.	a. OEM Name b. Qualification Name (Wherever applicable)															
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-05-TL-04085-2025-V2-TSSC	6. NCrf/NSQF Level: 5.0													
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 Field Operations Coordinator is responsible to ensure a fault-free network by coordinating with the Network Operations Centre (NOC) and the transmission team for periodic maintenance and fault resolution at radio locations. The individual is responsible for accepting new sites from the projects team, ensuring compliance with operational standards, and overseeing network upgrades and modifications. The role involves troubleshooting, preventive maintenance, and ensuring seamless execution of change activities to maintain network stability and performance.														
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>Completed 2nd year of 3-year/ 4-years UG (B.Tech/B.E. in Electronics Engineering/ Electrical Engineering/ Telecommunication Engineering)</td> <td></td> </tr> <tr> <td>2.</td> <td>Completed 2nd year of diploma (after 12th) in Electronics and Communication Engineering/ Telecommunication Engineering/ Network Management and Security/ Wireless and Mobile Communication</td> <td></td> </tr> <tr> <td>3.</td> <td>12th grade pass</td> <td>3-year experience in telecom field operations</td> </tr> </tbody> </table>			S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	Completed 2nd year of 3-year/ 4-years UG (B.Tech/B.E. in Electronics Engineering/ Electrical Engineering/ Telecommunication Engineering)		2.	Completed 2nd year of diploma (after 12th) in Electronics and Communication Engineering/ Telecommunication Engineering/ Network Management and Security/ Wireless and Mobile Communication		3.	12th grade pass	3-year experience in telecom field operations
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)														
1.	Completed 2nd year of 3-year/ 4-years UG (B.Tech/B.E. in Electronics Engineering/ Electrical Engineering/ Telecommunication Engineering)															
2.	Completed 2nd year of diploma (after 12th) in Electronics and Communication Engineering/ Telecommunication Engineering/ Network Management and Security/ Wireless and Mobile Communication															
3.	12th grade pass	3-year experience in telecom field operations														

		<table border="1"> <tr> <td>4.</td><td>Previous relevant Qualification of NSQF Level 4.0</td><td>3-year experience in telecom field operations</td></tr> <tr> <td>5.</td><td>Previous relevant Qualification of NSQF Level 4.5</td><td>1.5-year experience in telecom field operations</td></tr> </table>	4.	Previous relevant Qualification of NSQF Level 4.0	3-year experience in telecom field operations	5.	Previous relevant Qualification of NSQF Level 4.5	1.5-year experience in telecom field operations												
4.	Previous relevant Qualification of NSQF Level 4.0	3-year experience in telecom field operations																		
5.	Previous relevant Qualification of NSQF Level 4.5	1.5-year experience in telecom field operations																		
		b. Age: NA																		
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	21																		
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>210</td><td>300</td><td>120</td><td></td><td>630</td></tr> <tr> <td>Online</td><td>210</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)	210	300	120		630	Online	210				
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)															
Classroom (offline)	210	300	120		630															
Online	210																			
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/3114.0701																		
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Telecom Field Operations Coordinator (NSQF Level 5) → Base Station Sub-System (BSS) Support Engineer (NSQF Level 6)																		
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 Field Operations Coordinator 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/N9109																		
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: 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

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.	Undertake Site Acceptance Testing	TEL/N6208, v4.0	Core	5.0	5	40	80	30	-	150	30	50	-	20	100	15
2.	Perform Preventive and Corrective Maintenance at Radio Locations	TEL/N6209, v4.0	Core	5.0	4	30	60	30	-	120	30	50	-	20	100	15
3.	Perform Change Management at Radio Locations	TEL/N6210, v5.0	Core	5.0	3	30	30	30	-	90	30	50	-	20	100	15
4.	Undertake Fault Rectification	TEL/N6500, v4.0	Core	5.0	3	30	30	30	-	90	30	50	-	20	100	15
5.	Undertake Configuration Changes, Upgrades and Node Back-up Activities	TEL/N6501, v4.0	Core	5.0	3	30	60	-	-	90	30	50	-	20	100	15
6.	Follow sustainable practices in telecom infrastructure management	TEL/N9109, v1.0	Core	4.0	1	10	20	-	-	30	30	50	-	20	100	10
7.	Manage Work, Resources and Safety at workplace	TEL/N9104, v2.0	Non-Core	5.0	1	10	20	-	-	30	40	50	-	10	100	10
8.	Employability Skills (30 Hours)	DGT/VSQ/N 0101, v1.0	Non-Core	2.0	1	30	-	-	-	30	20	30	-	-	50	5
Duration (in Hours) / Total Marks					21	210	300	120	-	630	240	380	-	130	750	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 Science/ Electrical/ Electronics/ IT and other relevant fields. Industry & Training Experience: 7 years of experience in Telecom Field Operation Domain. 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 Science/ Electrical/ Electronics/ IT and other relevant fields. Industry & Training Experience: 10 years of experience in Telecom Field Operation 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 (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 Science/ Electrical/ Electronics/ IT and other relevant fields. Industry & Training Experience: 7 years of experience in Telecom Field Operation Domain. Certification: "Assessor" mapped to the Qualification Pack "MEP/Q2701, v3.0". Minimum accepted score is 80% aggregate.
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2.	Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Educational Qualification: Graduate in any discipline, preferably Science/ Electrical/ Electronics/ IT and other relevant fields. Industry & Training Experience: 7 years of experience in Telecom Field Operation 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 Science/ Electrical/ Electronics/ IT and other relevant fields. Industry & Training Experience: Minimum 10 years of experience in Telecom Field Operation 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: 1790
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>
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2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Annexure 2
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Annexure 6
4.	Annexure: Assessment Strategy (Mandatory)	Annexure 7
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	NA
6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	Yes
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	Undertake Site Acceptance Testing: - Verify site readiness, ensuring infrastructure compliance with technical and safety standards. - Conduct acceptance tests to validate network performance and document findings. Perform Preventive and Corrective Maintenance: - Inspect radio equipment, power systems, and cables for early fault detection. - Implement corrective actions to maintain optimal network performance and minimize downtime. Manage Change Activities and Configuration Upgrades: - Plan and execute network upgrades, configuration changes, and node backups. - Coordinate with NOC for seamless integration and monitor system performance post-upgrade. Undertake Fault Rectification:	A Telecom Field Operations Coordinator requires a strong understanding of site acceptance testing, ensuring infrastructure readiness, verifying equipment installation, and aligning with technical specifications. The role demands expertise in planning and executing preventive and corrective maintenance activities to minimize network disruptions and maintain optimal performance. Additionally, the coordinator oversees configuration changes, upgrades, and node backups while ensuring smooth integration with existing systems. Fault detection and rectification are crucial aspects, involving prompt diagnosis and resolution of network issues to restore service reliability. The coordinator also applies sustainable practices by optimizing power consumption and resource management while ensuring compliance with environmental and safety standards during all site activities.	5.0

	• Diagnose and troubleshoot equipment failures, ensuring timely resolution. • Document fault analysis and corrective measures for continuous improvement. Implement Sustainable Practices: • Optimize energy use in telecom sites and manage waste disposal responsibly. • Promote eco-friendly practices while maintaining infrastructure. Ensure Workplace Safety and Compliance: • Adhere to safety protocols, ensuring compliance with regulatory standards. • Conduct risk assessments and maintain records of safety measures. •		
Professional and Technical Skills/ Expertise/ Professional Knowledge	• Knowledge of Site Acceptance Testing (SAT) procedures to verify equipment installation, performance, and compliance. • Understand the methods for performing preventive and corrective maintenance at radio locations to ensure uninterrupted network operations. • Knowledge of fault identification and rectification techniques for handling network issues, in coordination with the NOC. • Understand the process of implementing configuration changes, upgrades, and backup activities for network stability. • Knowledge of change management processes to oversee equipment modifications and minimize network disruptions. • Understand the importance of sustainable practices in telecom infrastructure to optimize resource use and reduce environmental impact. • Knowledge of telecom power systems like SMPS, DG, and PIU for effective power management and maintenance. • Understand the protocols for ensuring workplace	A Telecom Field Operations Coordinator possesses specialized knowledge in conducting Site Acceptance Testing (SAT) to verify infrastructure performance. The role demands expertise in implementing preventive and corrective maintenance procedures, ensuring continuous network performance. The coordinator applies change management protocols, handling configuration changes, system upgrades, and backups with minimal service disruption. Strong fault diagnosis skills are crucial, identifying root causes and implementing effective solutions. Additionally, the role requires a deep understanding of sustainable practices, promoting energy efficiency, resource optimization, and compliance with environmental standards. Adherence to workplace safety norms, conducting risk assessments, and maintaining accurate records further reflect the technical competence expected at this level.	5.0

	safety, adhering to health and safety standards, and managing emergencies. • Knowledge of quality standards and service-level agreements (SLAs) to maintain service efficiency and customer satisfaction. • Understand the documentation and reporting processes to track maintenance activities, network performance, and compliance.		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Exhibit strong communication and collaboration skills to coordinate effectively between NOC, transmission teams, and field staff. • Apply organizational and time management skills to prioritize tasks, manage schedules, and ensure timely maintenance and fault resolution. • Demonstrate digital literacy for using telecom-specific tools, software, and reporting systems to monitor and maintain network performance. • Utilize problem-solving abilities and analytical thinking to diagnose complex network issues and implement effective solutions. • Exercise self-management and adaptability to handle unpredictable challenges while ensuring smooth field operations. • Display an entrepreneurial mindset to identify process improvements, optimize resource use, and contribute to business growth.	Employment readiness for a Telecom Field Operations Coordinator emphasizes project coordination, effective communication, and collaboration with various stakeholders such as the NOC and on-site teams. The role requires strong analytical and problem-solving skills to diagnose complex network issues and apply suitable corrective measures. Self-management and the ability to take initiative in addressing network challenges independently are key attributes. Adaptability to technological advancements is essential, ensuring seamless integration of new technologies into day-to-day operations. Furthermore, promoting eco-friendly practices and ensuring compliance with regulatory guidelines demonstrate a responsible mindset. These competencies prepare the coordinator to manage field operations efficiently while embracing opportunities for career growth and entrepreneurship.	5.0
Broad Learning Outcomes/Core Skill	The Broad Learning Outcomes/Core Skill are: • Coordinate Site Acceptance Testing (SAT) by verifying equipment performance and ensuring compliance with operational standards. • Perform preventive and corrective maintenance to maintain optimal functionality of power systems, antennas, and network infrastructure. • Apply fault rectification techniques by diagnosing and resolving network issues with the NOC and	A Telecom Field Operations Coordinator conducts site assessments, ensuring infrastructure readiness and compliance with operational standards. The coordinator acquires skills in preventive maintenance and fault resolution to uphold network performance and minimize service disruptions. Expertise in handling change management processes, executing system upgrades, and implementing configuration changes ensures smooth operations. The role strengthens problem-solving capabilities by diagnosing network faults and applying corrective measures effectively. Additionally, a keen focus on workplace safety and adherence	5.0

	other teams. • Manage configuration changes and upgrades by overseeing hardware/software updates and ensuring proper backup procedures. • Implement sustainable practices to optimize energy use, reduce environmental impact, and follow eco-friendly standards. • Develop workplace management skills by enhancing communication, teamwork, safety practices, and quality control.	to regulatory protocols enhances operational integrity. Promoting sustainable practices, such as optimizing energy efficiency and managing site resources responsibly, further aligns with the expectations of NSQF Level 5.	
Responsibility	The responsibilities are: • Perform Acceptance Test (AT) of new sites • Communicate test results and update records • Arrange for tools, test equipment, and spares • Carry out Preventive Maintenance (PM) • Carry out Corrective Maintenance (CM) • Assess upgradation of infrastructure • Arrange for tools, spares, and resources • Carry out change and monitor post-change performance • Monitor network alarms • Perform fault diagnosis and rectification • Test effectiveness, report and record the test results • Determine change requirements • Execute changes and monitor post-change activities from NOC location • Manage learning and self-direction • Develop critical thinking and problem solving • Perform work as per quality standards • Maintain safe and secure working environment • Comply with material / energy / electricity conservation practices • Manage hazardous and e-waste at telecom sites • Adopt green energy and resource efficiency practices	A Telecom Field Operations Coordinator is responsible to ensure a fault-free network by coordinating with the Network Operations Centre (NOC) and the transmission team for periodic maintenance and fault resolution at radio locations. The individual is responsible for accepting new sites from the projects team, ensuring compliance with operational standards, and overseeing network upgrades and modifications. The role involves troubleshooting, preventive maintenance, and ensuring seamless execution of change activities to maintain network stability and performance.	5.0

	- Follow waste reduction strategies - Ensure compliance with environmental regulations		
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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.	Personal Protective Equipment (Safety belt, helmet, antistatic bands, harness, safety gloves etc.)	Pieces	10
2.	Test Equipment (E-1 Tester, Ethernet Tester, VSWR meter, optical power meter etc.)	Pieces	1
3.	Laptop/PC with MS office pre-installed	Pieces	5
4.	Hand Tools (Spanner, Tester, Multimeter, ammeter, screw driver, pliers etc.)	Pieces	5
5.	Optical Fibre(Single Mode & Multi Mode)	Pieces	5
6.	Communication cables (Hi-Speed USB, RS-232, console cables - twisted pair/straight cable/cross cable)	Pieces	4
7.	Projection System With PC/Laptop	Pieces	1
8.	BSS/BTS Software	Per laptop	1

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 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	anshlgu@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	arun.singh@edgetelecom.org	

				Hwy, near Subhash Chowk, 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 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	537	376	27	14	27	14
2026	537	376	27	14	27	14
2027	716	500	36	18	36	18

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	April 2022 to March 2023	105	91	88									
3.0	April 2023 to March 2024	57	56	53									
3.0	April 2024 to March 2025	1265	226	183									

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/N6208: Undertake Site Acceptance Testing	<i>Perform Acceptance Test (AT) of new sites</i>	20	28	-	10
	PC1. collect and review site AT checklists, project documentation, and technical specifications from relevant teams	3	5	-	1
	PC2. check the availability and functionality of required test equipment such as E1 tester, Ethernet tester, VSWR meter, power meter, and optical meter	3	5	-	1
	PC3. ensure compatibility of installed software versions on laptops and confirm they are ready for use in testing	4	3	-	1
	PC4. inspect physical infrastructure for adherence to standards, including shelter condition, weatherproofing, grouting, cabling, earthing, and connector integrity	2	3	-	2
	PC5. conduct logical tests such as VSWR levels, alarm connectivity, and equipment connectivity per site AT checklist	3	3	-	1
	PC6. coordinate with field teams to complete testing of passive infrastructure, including antenna alignment, diesel generator functionality, SMPS condition, and battery backup performance	2	3	-	2
	PC7. validate network performance by measuring key parameters such as signal strength, latency, throughput, and redundancy mechanisms	2	3	-	1

	PC8. identify and document deviations from required specifications, flagging critical issues that need immediate resolution	1	3	-	1
	<i>Communicate test results and update records</i>	10	22	-	10
	PC9. report test outcomes to all relevant stakeholders, including BSS/BTS engineers, the NOC team, and project managers	1	4	-	2
	PC10. highlight non-compliance issues and share a detailed punch list of pending tasks with the projects team for rectification	2	4	-	2
	PC11. update site documentation with complete and accurate test records as per organizational standards	2	4	-	2
	PC12. ensure accessibility of updated documentation to relevant authorities for verification and future reference	3	6	-	2
	PC13. recommend corrective measures for issues identified during testing and collaborate with teams for resolution	2	4	-	2
Total Marks		30	50	-	20
TEL/N6209: Perform Preventive and Corrective Maintenance at Radio Locations	<i>Prepare for Preventive Maintenance (PM)</i>	5	8	-	3
	PC1. maintain an updated site folder with a list of sites, BTS types, transceiver details, and maintenance history	2	2	-	0.5
	PC2. obtain and review the PM schedule, site-specific checklists, and compliance guidelines from the supervisor	1	2	-	0.5
	PC3. coordinate with the Network Operations Centre (NOC) to confirm maintenance windows and potential site impact	1	2	-	1
	PC4. verify availability and functionality of necessary test equipment before proceeding with PM activities	1	2	-	1
	<i>Prepare for Corrective Maintenance (CM)</i>	3	6	-	3
	PC5. identify and assess alarm severity based on predefined Service Level Agreements (SLAs) and impact on network elements	1	2	-	1
	PC6. retrieve and analyze fault reports and historical data from the NOC to identify potential root causes	1	2	-	1
	PC7. prioritize corrective actions based on service impact analysis and escalate critical alarms if required	1	2	-	1
	<i>Arrange for tools, test equipment, and spares</i>	3	6	-	2
	PC8. ensure availability of login cables (RJ45, RS232, USB), updated site software, and necessary spare components such as TRX cards, rectifiers, and power modules	1	2	-	0.5
	PC9. generate spare part requisitions following inventory policies and update spare tracking records	1	2	-	0.5
	PC10. implement a process for faulty equipment repair and return logistics, ensuring minimal downtime	1	2	-	1
	<i>Carry out Preventive Maintenance (PM)</i>	8	10	-	5
	PC11. conduct scheduled maintenance activities (monthly, quarterly, half-yearly) as per organizational standards	1	2	-	0.5

	PC12. inspect and document the physical condition of equipment, including temperature levels, cable routing, fan operation, battery voltage, oil levels in DG sets, and air filter condition	1	1	-	0.5
	PC13. verify grouting, earthing connections, earthing pit moisture levels, insulation integrity, and electrical wiring compliance	1	1	-	1
	PC14. perform logical maintenance tasks, including checking alarm status, system redundancy, and software/firmware version control	2	1	-	0.5
	PC15. ensure timely raising of maintenance requests for third-party infrastructure, including HVAC and power supply systems	1	2	-	0.5
	PC16. escalate unresolved or emergency issues following organizational protocols	1	1	-	1
	PC17. coordinate with the infrastructure engineer to ensure environmental upkeep, security, and hazard mitigation	1	2	-	1
	<i>Carry out Corrective Maintenance (CM)</i>	<i>5</i>	<i>10</i>	<i>-</i>	<i>3</i>
	PC18. conduct initial diagnostic tests to isolate and identify fault sources in active and passive equipment	1	2	-	0.5
	PC19. analyze fault resolution options and seek supervisor approval when required	1	2	-	0.5
	PC20. work with infrastructure engineers to resolve passive infrastructure issues such as DG, power systems, and grounding	1	2	-	1
	PC21. use appropriate login cables and diagnostic tools to troubleshoot BTS, microwave IDU/ODU, and fiber optic links	1	2	-	0.5
	PC22. implement corrective actions within defined SLAs, ensuring proper tracking of repair work and component replacements	1	2	-	0.5
	<i>Test effectiveness, report, and record</i>	<i>6</i>	<i>10</i>	<i>-</i>	<i>4</i>
	PC23. verify maintenance effectiveness by monitoring alarm status and system parameters post-repair	1	2	-	0.5
	PC24. ensure completion of all administrative tasks such as site clearance, tool return, and compliance checks	1	2	-	0.5
	PC25. notify relevant stakeholders, including BSS/BTS support engineers, NOC, and supervisors, about maintenance outcomes	1	2	-	1
	PC26. maintain up-to-date logs of maintenance activities, alarm resolutions, and spare part usage as per documentation standards	2	2	-	1
	PC27. ensure documentation accuracy and compliance for regulatory audits and operational reference	1	2	-	1
	Total Marks	30	50	-	20
TEL/N6210: Perform Change Management at Radio Locations	<i>Assess upgradation of infrastructure</i>	<i>10</i>	<i>15</i>	<i>-</i>	<i>6</i>
	PC1. validate change requests from relevant teams such as NOC, change management, and network planning	1	2	-	0.5
	PC2. identify and categorize the type of activity, including hardware upgrades, software updates, capacity augmentation, antenna realignment, or microwave backup	2	2	-	0.5
	PC3. analyze the criticality, dependencies, and impact of the requested change on network performance	2	2	-	1

	PC4. develop a structured work plan, including pre-change checks and resource requirements	2	3	-	1
	PC5. assess potential downtime and develop contingency measures to minimize service disruption	1	2	-	1
	PC6. notify and obtain approval from the Network Operation Centre (NOC) before executing any changes	1	2	-	1
	PC7. verify that necessary permits and access authorizations are obtained prior to initiating the upgrade	1	2	-	1
	<i>Arrange for tools, spares, and resources</i>	<i>6</i>	<i>10</i>	<i>-</i>	<i>4</i>
	PC8. ensure availability of login cables, latest firmware/software versions, and site-specific diagnostic tools	1	3	-	1
	PC9. check inventory levels of essential spare hardware, such as TRX cards, and initiate requests if needed	2	2	-	1
	PC10. coordinate with the logistics team for the procurement, repair, and return of faulty or obsolete equipment	2	2	-	1
	PC11. ensure compliance with organizational spare management and tracking procedures	1	3	-	1
	<i>Carry out change and monitor post-change performance</i>	<i>7</i>	<i>14</i>	<i>-</i>	<i>5</i>
	PC12. implement change management activities as per the approved work plan and industry best practices	1	3	-	1
	PC13. conduct real-time monitoring of key performance indicators (KPIs) during and after the change	2	4	-	1
	PC14. identify and escalate any anomalies or unexpected network behaviors immediately	2	2	-	1
	PC15. execute rollback procedures if changes result in service degradation beyond acceptable thresholds	1	3	-	1
	PC16. adhere to defined Service Level Agreements (SLAs) for change completion and performance validation	1	2	-	1
	<i>Report and document the status</i>	<i>7</i>	<i>11</i>	<i>-</i>	<i>5</i>
	PC17. complete administrative tasks post-change, including site clearance and return of testing tools	1	3	-	1
	PC18. verify post-change effectiveness by monitoring alarm status and liaising with the NOC team	1	2	-	1
	PC19. document all activities, including before-and-after performance snapshots, troubleshooting logs, and resolution timelines	2	2	-	1
	PC20. notify all relevant stakeholders (Field Management Engineer, NOC team, supervisors) regarding the status of changes and obtain sign-offs	2	2	-	1
	PC21. update network documentation, maintenance logs, and spare inventory records in compliance with regulatory and organizational standards	1	2	-	1
	Total Marks	30	50	-	20
TEL/N6500: Undertake Fault Rectification	<i>Monitor network alarms</i>	<i>12</i>	<i>16</i>	<i>-</i>	<i>8</i>
	PC1. log in to the alarm management system using secure user credentials	2	4	-	2

	PC2. monitor network alarms on the Network Management System (NMS) and assess threshold levels	2	2	-	1
	PC3. generate service requests/tickets as per the priority matrix and escalate unresolved critical alarms analyze alarm severity, affected network elements, and SLAs to initiate corrective action	2	3	-	2
	PC4. verify fault resolutions by comparing current configurations against previous backup records and alarm logs	2	3	-	1
	PC5. coordinate with the infrastructure NOC to determine if the alarm originates from passive infrastructure faults	2	2	-	1
	PC6. categorize alarms based on service impact analysis and take appropriate actions for resolution	2	2	-	1
	<i>Perform fault diagnosis and rectification</i>	<i>6</i>	<i>19</i>	<i>-</i>	<i>6</i>
	PC7. identify root causes of alarms by following standardized troubleshooting protocols	1	5	-	1
	PC8. conduct advanced diagnostic tests, including remote analysis of active equipment, in case predefined methods are unavailable	1	4	-	1
	PC9. evaluate fault rectification options and confirm the selected solution with supervisors if required	1	2	-	1
	PC10. determine if a system reset or other corrective measures are necessary based on fault severity	1	4	-	1
	PC11. dispatch field engineers and provide clear fault rectification instructions, including part replacements, as per SLAs	1	2	-	1
	PC12. monitor and verify the fault resolution process executed by field engineers and technicians	1	2	-	1
	<i>Test effectiveness, report, and record test results</i>	<i>12</i>	<i>15</i>	<i>-</i>	<i>6</i>
	PC13. coordinate with the NOC team to confirm maintenance effectiveness by monitoring post-rectification alarm status	2	3	-	1
	PC14. ensure completion of post-maintenance activities, including equipment return and site clearance	2	2	-	1
	PC15. notify all relevant stakeholders (BSS/BTS support engineers, NOC team, supervisors, project teams) of test results	2	3	-	1
	PC16. maintain detailed logs, including fault rectification reports, maintenance records, and spare parts usage	2	3	-	1
	PC17. ensure all documentation is updated, reviewed, and maintained as per organizational standards	2	2	-	1
	PC18. provide necessary documents for audits and regulatory inspections in a timely manner	2	2	-	1
Total Marks		30	50	-	20
TEL/N6501: Undertake Configuration Changes, Upgrades and Node Back-up Activities	<i>Determine change requirements</i>	<i>15</i>	<i>21</i>	<i>-</i>	<i>8</i>
	PC1. identify and verify change requirements based on scheduled maintenance plans, operational needs, and directives from technical teams	3	5	-	1
	PC2. assess the urgency and criticality of the requested changes, considering potential operational risks and business impact	2	4	-	2

	PC3. develop a structured work plan that includes resource allocation, dependencies, and approval workflows	3	3	-	1
	PC4. conduct a risk analysis to anticipate service outages and determine mitigation strategies	2	3	-	1
	PC5. notify the Network Operations Centre (NOC) and relevant stakeholders before initiating upgrade or configuration changes	2	4	-	1
	PC6. obtain necessary approvals from customers and management for service-impacting changes, ensuring compliance with regulatory and contractual obligations	3	2	-	2
	<i>Execute changes and monitor post-change activities from NOC location</i>	<i>9</i>	<i>17</i>	<i>-</i>	<i>7</i>
	PC7. implement configuration changes, software upgrades, and firmware updates as per approved change requests	2	3	-	1
	PC8. perform comprehensive node backups before and after change activities, adhering to organizational backup policies	1	4	-	1
	PC9. monitor system performance and alarms post-change to detect anomalies or failures	2	3	-	2
	PC10. execute contingency plans in case of service disruption, ensuring rollback procedures are in place	2	3	-	1
	PC11. ensure adherence to Service Level Agreements (SLAs) and change management protocols throughout the process	2	4	-	2
	<i>Report and document the status</i>	<i>6</i>	<i>12</i>	<i>-</i>	<i>5</i>
	PC12. collaborate with the NOC team to verify system stability and performance post-maintenance	2	4	-	1
	PC13. provide timely updates and detailed reports to stakeholders, including NOC personnel and supervisors	2	4	-	2
	PC14. log change activities, findings, and resolutions in the system, ensuring tickets are updated and closed appropriately	2	4	-	2
	Total Marks	30	50	-	20
TEL/N9109: Follow sustainable practices in telecom infrastructure management	<i>Manage hazardous and e-waste at telecom sites</i>	<i>10</i>	<i>16</i>	<i>-</i>	<i>8</i>
	PC1. identify, segregate, and categorize e-waste (batteries, cables, outdated equipment) and hazardous waste (lead-acid batteries, diesel residues, etc.)	3	4	-	2
	PC2. dispose of or recycle waste following the applicable e-waste management guidelines	3	4	-	2
	PC3. follow safe handling procedures for hazardous materials, including protective gear usage	2	4	-	2
	PC4. maintain logs and records of disposed, recycled, or repurposed telecom waste	2	4	-	2
	<i>Adopt green energy and resource efficiency practices</i>	<i>8</i>	<i>12</i>	<i>-</i>	<i>6</i>
	PC5. optimize power usage through energy-efficient telecom equipment (e.g., LED lighting, smart cooling systems)	2	4	-	2
	PC6. assist in adopting solar-powered telecom towers and integration of hybrid energy systems (e.g. solar power and battery backup)	3	4	-	2
	PC7. monitor and minimize fuel consumption in Diesel Generators (DG) sets through load balancing and regular maintenance	3	4	-	2
	<i>Follow waste reduction strategies</i>	<i>6</i>	<i>12</i>	<i>-</i>	<i>3</i>

	PC8. reduce packaging waste by promoting the reuse of telecom materials and accessories	2	4	-	1
	PC9. follow rainwater harvesting and wastewater reuse practices in telecom cooling systems	2	4	-	1
	PC10. promote structured cabling to reduce cable waste and optimize resource utilization	2	4	-	1
	<i>Ensure compliance with environmental regulations</i>	6	10	-	3
	PC11. follow Central Pollution Control Board (CPCB) guidelines for telecom site waste disposal	2	4	-	1
	PC12. assist in conducting periodic environmental audits to ensure sustainability compliance	2	3	-	1
	PC13. guide co-workers on eco-friendly practices and waste management policies at telecom sites	2	3	-	1
Total Marks		30	50	-	20
TEL/N9104: Manage Work, Resources and Safety at workplace	<i>Manage learning and self-direction</i>	4	5	-	-
	PC1. develop technical and personal skills to be updated with new technologies prevalent in the industry	2	1	-	-
	PC2. train the team such that they are able to adapt latest products/services in their working environment	1	2	-	-
	PC3. identify opportunities for team building workshops and motivational trainings	1	2	-	-
	<i>Develop critical thinking and problem solving</i>	4	7	-	-
	PC4. guide the team to be accountable for timely completion of tasks	2	3	-	-
	PC5. analyse problems accurately to be able to correctly suggest suitable solutions to the concerned persons	1	2	-	-
	PC6. train the team to estimate the cause of the problem and validate	1	2	-	-
	<i>Perform work as per quality standards</i>	5	9	-	4
	PC7. implement ways to keep immediate as well as team's work area clean and tidy	1	2	-	-
	PC8. maintain efficiency and productivity while performing role/responsibility	1	2	-	2
	PC9. supervise the team to ensure that the work is done as per the assigned and agreed requirements	1	2	-	1
	PC10. create schedules and rosters for the team to ensure they understand individual work requirements	2	3	-	1
	<i>Maintain safe and secure working environment</i>	12	13	-	2
	PC11. identify organisation's health, safety, security policies and procedures	3	3	-	-
	PC12. instruct team to report any identified breaches in health, safety, and security policies and procedures to the designated person	3	3	-	-
	PC13. manage hazards such as illness, accidents, fires or any other natural calamity safely, as per organisation's emergency procedures, within the limits of individual's authority	3	4	-	1

	PC14. report any hazard outside the individual's authority to the relevant person in line with organisational procedures and warn others who may be affected	3	3	-	1
	<i>Material / energy / electricity conservation practices</i>	15	16	-	4
	PC15. implement ways to optimize usage of material including water in various tasks/activities/processes	1	2	-	1
	PC16. supervise the team to ensure responsible use of resources	2	2	-	1
	PC17. motivate the team to carry out routine cleaning of tools, machine and equipment	2	2	-	1
	PC18. guide the team to optimize use of electricity/energy in various tasks/activities/processes	3	4	-	-
	PC19. implement periodic checks of the functioning of the equipment/machine and rectify wherever required	2	2	-	1
	PC20. guide the team to report malfunctioning and lapses in maintenance of equipment	3	2	-	-
	PC21. implement ways to use electrical equipment and appliances properly	2	2	-	-
	Total Marks	40	50	-	10
DGT/VSQ/N0101: Employability Skills (30 Hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	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	240	380	-	130

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
AT	Acceptance Test
VSWR	Voltage Standing Wave Ratio
SMPS	Switched-Mode Power Supply
BSS	Base Station Subsystem
BTS	Base Transceiver Station
NOC	Network Operations Centre
SAT	Site Acceptance Testing
DG	Diesel Generators
PIU	Power Interface Unit
PM	Preventive Maintenance
CM	Corrective Maintenance
SLA	Service Level Agreements
TRX	Transceiver
NMS	Network Management System
MOP	Maintenance Operation Protocols
CPCB	Central Pollution Control Board

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