



QUALIFICATION FILE-OEM

<Wireless Network Technician>

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

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

☒ General ☐ Multi-Skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☒ Original Equipment Manufacturer (OEM)

NCrF/NSQF Level: 4

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	Wireless Network Technician	
2.	Sector/s	Telecom	
3.	Type of Qualification: ☒ New ☐ Revised ☐ Has Electives/Options ☒ OEM	NQR Code & version of existing/previous qualification: <i>(change to previous, once approved)</i>	Qualification Name of existing/previous version:
4.	a. OEM Name b. Qualification Name <i>(Wherever applicable)</i>	BSNL Wireless Network Technician	
5.	National Qualification Register (NQR) Code &Version <i>(Will be issued after NSQC approval)</i>	QG-04-TL-04423-2025-V1-TSSC & v1.0	6. NCrf/NSQF Level: 4
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other <i>(Wherever applicable specify multiple entry/exits also & provide details in annexure)</i>	Certificate	
8.	Brief Description of the Qualification	The individual is responsible for supporting and maintaining wireless network infrastructure, including analysing performance reports, addressing customer complaints, performing maintenance at base station and radio sites, and assisting in the deployment of 5G networks. The role involves defining 5G architecture standards, preparing and verifying hardware, designing spectrum allocation, and implementing 5G New Radio (NR) and Radio Access Network (RAN) elements in compliance with regulatory and operator guidelines. The individual works closely with cross-functional teams to ensure optimal network performance and quality of service.	

9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1" data-bbox="1025 180 2033 531"> <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>No Experience</td></tr> <tr> <td>2.</td><td>Completed 2nd year of 3-year diploma after 10th(See note below)</td><td>No Experience</td></tr> <tr> <td>3.</td><td>Previous relevant Qualification of NSQF Level 3.5</td><td>1.5-year relevant experience*</td></tr> <tr> <td>4.</td><td>Previous relevant Qualification of NSQF Level 3</td><td>3-year relevant experience*</td></tr> </tbody> </table> <i>*experience in Wireless Domain and other relevant fields</i> b. Age: <Please specify age only in case of any legal restrictions>						S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	12 th Grade Pass	No Experience	2.	Completed 2nd year of 3-year diploma after 10 th (See note below)	No Experience	3.	Previous relevant Qualification of NSQF Level 3.5	1.5-year relevant experience*	4.	Previous relevant Qualification of NSQF Level 3	3-year relevant experience*		
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																						
1.	12 th Grade Pass	No Experience																						
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3.	Previous relevant Qualification of NSQF Level 3.5	1.5-year relevant experience*																						
4.	Previous relevant Qualification of NSQF Level 3	3-year relevant experience*																						
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	20	11. Common Cost Norm Category (I/II/III) (wherever applicable): I																					
12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)																							
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" data-bbox="952 906 2051 1078"> <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>225</td><td>225</td><td>150</td><td></td><td>600</td></tr> <tr> <td>Online</td><td></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)	225	225	150		600	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																			
Classroom (offline)	225	225	150		600																			
Online																								
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/7422.0802																						
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Senior Technician (Wireless Network)																						
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																						
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:																						
18.	Is the Job Role Amenable to Persons with Disability	☐ Yes ☒ No																						

		If “Yes”, specify applicable type of Disability:
19.	How Participation of Women will be Encouraged	In the Wireless Network sector, participation of women will be promoted by creating awareness of career opportunities in wireless network operations, design, and maintenance through targeted outreach programmes. Training will be offered in a gender-sensitive environment with provisions for safety, secure transport, and appropriate on-site facilities. Field roles will be adapted, where possible, to accommodate flexible scheduling and team-based assignments, enabling women to work alongside experienced technicians in a safe and collaborative manner. Special emphasis will be placed on building women’s technical capabilities in 5G network integration, network monitoring, and remote support functions, thereby allowing them to progress into supervisory and specialist roles within the wireless industry.
20.	Are Greening/ Environment Sustainability Aspects Covered <i>(Specify the NOS/Module which covers it)</i>	☒ Yes ☐ No DGT/VSQ/N0101
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: Sanjay Mehrotra Email: sanjay.mehrotra@tsscindia.com Contact No.: +91-8700661694 Website: https://www.tsscindia.com/
23.	Final Approval Date by NSQC: 30-09-2025	24. Validity Duration: 3 years 25. Next Review Date: 30-09-2028

***Note-** Diploma in Telecommunications/Electronics/IT/AI/Computer science/Industrial/Electrical etc. or a combination of these.

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** **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core / Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Perform Base Station System Support Operations	TEL/N4147 & v1.0	Core	4	1.5	20	10	15		45	30	50	-	20	100	25
2.	Analyse Performance Reports and Conduct Network Optimisation	TEL/N4144 & v1.0	Core	4	6.5	50	90	55		195	30	50	-	20	100	25
3.	Integrate and Configure 5G Network Systems	TEL/N4145 & v1.0	Core	4	2	25	25	10		60	30	50	-	20	100	20
4.	Set Standards, Prepare Hardware, and Implement 5G Network	TEL/N4146 & v1.0	Core	4	8	90	80	70		240	30	50	-	20	100	15
5.	Operational Skills	TEL/N6287 & v1.0	Non-Core	4	0.5	5	10			15	30	50	-	20	100	5
6.	Maintain Workplace Safety, Resource Optimization, and Hygiene Standards	TEL/N6285 & v1.0	Non-Core	4	0.5	5	10			15	30	50	-	20	100	5
7.	Employability Skills (30 Hours)	DGT/VSQ/N0101 & v1.0	Non-Core	2	1	30				30	20	30	-	-	50	5
Duration (in Hours) / Total Marks					20	225	225	150		600	200	330		120	650	100

Elective NOS/s:

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.																
2.																
Duration (in Hours) / Total Marks																

Optional NOS/s:

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.																
2.																
Duration (in Hours) / Total Marks																

Assessment - Minimum Qualifying Percentage

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

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

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

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	Graduate in Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Or Industry & Training Experience: 2 years of experience after Graduation in Wireless Domain.
2.	Master Trainer's Qualification and experience in the relevant sector (in years) <i>(as per NCVET guidelines)</i>	Graduate in Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Or Industry & Training Experience: 4 years of experience after Graduation in Wireless Domain.
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	

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Graduate in Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Or Industry & Training Experience: 2 years of experience after Graduation in Wireless Domain.
2.	Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Graduate in Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Or Industry & Training Experience: 2 years of experience after Graduation in Wireless Domain.
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Graduate in Electronics and Communication /Telecom/ Information Technology/ Computer Science and other relevant fields. Or Industry & Training Experience: 4 years of experience after Graduation in Wireless Domain.
4.	Assessment Mode <i>(Specify the assessment mode)</i>	Blended
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):
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):
3.	Government /Industry initiatives/ requirement (Yes/No):
4.	Number of Industry validation provided: 1
5.	Estimated nos. of persons to be trained and employed: 1250
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: If "No", why:

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors (Mandatory)	Yes
2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Yes
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Yes
4.	Annexure: Assessment Strategy (Mandatory)	
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	Yes
6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	Yes
7.	Annexure: Acronym and Glossary (Optional)	Yes
8.	Supporting Document: Model Curriculum (Mandatory – Public view)	
9.	Supporting Document: Career Progression (Mandatory - Public view)	Yes
10.	Supporting Document: Occupational Map (Mandatory)	
11.	Supporting Document: Assessment SOP (Mandatory)	Yes
12.	Any other document you wish to submit:	No

Annexure: Evidence of Level

NCRF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCRF/NSQF level descriptor	NCRF/NSQF Level
Professional Theoretical Knowledge/Process	- Understand BSS, BSC, and RAN operation concepts and their role in wireless networks. - Interpret network performance reports, alarms, and KPIs. - Apply preventive maintenance procedures for network equipment. - Follow organisational SOPs, regulatory norms, and safety guidelines. - Knowledge of 5G integration standards, spectrum allocation, and architecture design principles.	At NSQF Level 4, the job role demands factual and theoretical knowledge of wireless network systems, including BSS, RAN, and 5G architecture. The individual applies structured processes to interpret KPIs, perform preventive maintenance, and adhere to regulatory standards. They follow SOPs and technical guidelines while integrating operational data into decision-making for network performance and reliability.	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	- Operate and interpret results from monitoring tools (OTDR, spectrum analyser, KPI dashboards). - Perform installation, integration, and testing of BSS/BSC/RAN/5G equipment. - Conduct fault diagnosis, hardware replacement, and configuration updates. - Optimise network parameters to improve coverage, capacity, and QoS. - Maintain accurate technical documentation and site records.	The role applies a variety of practical and cognitive skills to install, configure, monitor, and troubleshoot wireless network systems. Skills include interpreting alarms, conducting spectrum analysis, optimising network parameters, and integrating 5G elements with existing infrastructure. These skills are performed with independence and precision, ensuring compliance with technical specifications and safety requirements.	4
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	- Communicate effectively with NOC teams, field engineers, and customers. - Manage time and resources efficiently to meet SLAs. - Provide customer updates and handle service escalations professionally. - Work collaboratively in multi-disciplinary teams. - Potential to offer independent network maintenance or optimisation services.	Consistent with Level 4 descriptors, the individual demonstrates employability skills through effective communication, time management, and collaborative work. They can liaise between technical teams and customers, manage operational challenges, and consider entrepreneurial opportunities such as offering freelance network maintenance and optimisation services using industry-standard tools and practices.	4

Broad Learning Outcomes/Core Skill	• Interpret technical diagrams, network architecture plans, and test reports. • Record operational activities and maintenance logs digitally. • Use analytical skills to identify and resolve network issues. • Apply problem-solving techniques in dynamic operational environments. • Adapt to emerging technologies like 5G, IoT, and network virtualisation.	The role develops the ability to read and interpret network diagrams, maintain accurate records, and analyse performance data to solve problems. Skills extend to adapting to new technologies and evolving industry standards. This aligns with Level 4 requirements for applying core skills in a range of familiar and unfamiliar contexts with responsibility for quality outcomes.	4
Responsibility	• Independently execute installation, maintenance, and optimisation tasks under limited supervision. • Ensure completion of assigned work to quality and safety standards. • Escalate unresolved issues with complete supporting data. • Maintain confidentiality of network data and configurations. • Accountable for equipment safety, correct usage, and compliance.	At Level 4, the role involves responsibility for completing assigned technical tasks, maintaining compliance, and safeguarding network assets. The individual is accountable for the accuracy of their work, timely escalation of complex issues, and the safe operation of tools and equipment. They contribute to team objectives while working independently on defined tasks.	4

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size:

S. No.	Tool / Equipment Name	Specification	Quantity
1	Wireless technician tool kit	As required	As required
2	BTS Equipment (Optional)	As required	As required
3	BTS Commissioning Software or Simulator Software	As required	As required
4	Access to OSS	As required	As required
5	OSS Client Terminal	As required	As required
6	Access to BSS Talent Terminal	As required	As required
7	Remote Access to BSC Equipment	As required	As required
8	OSS Client	As required	As required
9	BSC Terminal Equipment	As required	As required
10	Access to OSS Client and BSC Terminal Equipment	As required	As required
11	4G/5G Test Bed (Optional)	As required	Optional
12	Access to 5G Test Bed	As required	Optional
13	RNP Tool	As required	As required
14	Protocol Analyser	As required	As required
15	5G Simulation Tool	Optional	Optional
16	Remote Access 5G Test Bed	Optional	Optional
17	MIMO Antenna System	As required	As required
18	SON Client Terminal	As required	As required

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Participant Handbook
2. Training Kit (Trainer Guide, Presentations)
3. Whiteboard
4. Marker Pen
5. Computer or Laptop attached to LCD Projector
6. Scanner
7. Computer Speakers

Annexure: Industry Validations Summary

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

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	BSNL	P.N.Dohare	Principal General Manager	ALTTC, Ghaziabad	9464444029	doharepratap@gmail.com	

Annexure: 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	250	188	83	62	7	5
2026	750	562	247	186	23	18
2027	250	188	83	62	7	5

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

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: 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		
2	☐ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners		
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: 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/N4147: Perform Base Station System Support Operations	PC1. identify the role and responsibilities of a BSS support engineer in telecom network operations	2	2	-	1
	PC2. interpret work instructions and job schedules from the network operations team	1	2	-	1
	PC3. access and monitor BSS system dashboards for alarms, KPIs, and performance reports	1	2	-	1

PC4. verify login credentials and access rights for system monitoring tools	1	2	-	1
PC5. maintain logs of daily operational activities for compliance and tracking	1	2	-	-
PC6. collect, review, and interpret network performance reports from the BSC	1	3	-	1
PC7. analyse customer complaints for service disruptions or quality issues	1	2	-	1
PC8. correlate faults with KPIs to determine root causes and recommend solutions	2	2	-	1
PC9. prepare incident reports based on data from NOC and customer feedback	1	2	-	1
PC10. escalate unresolved performance issues to higher technical teams	1	2	-	1
PC11. carry out preventive maintenance checks on BSC equipment as per schedule	1	2	-	1
PC12. verify the functionality of hardware modules and replace faulty components	2	2	-	1
PC13. clean and inspect cooling systems to maintain optimal equipment temperature	1	3	-	1
PC14. perform backup and restore procedures for BSC configuration files	1	2	-	1
PC15. record maintenance activities in the asset register	1	2	-	-
PC16. troubleshoot hardware and software faults in BSC systems	2	3	-	-
PC17. replace damaged cables, connectors, and modules	2	3	-	1
PC18. coordinate with vendors for warranty repairs or replacements	1	1	-	-
PC19. validate system performance post-repair through test calls and traffic analysis	1	2	-	-
PC20. conduct visual inspection of antennas, feeders, and RF cables at radio sites	1	2	-	1
PC21. verify site power supply, grounding, and environmental control systems	1	2	-	1
PC22. check site access control systems for security compliance	1	2	-	1
PC23. report any site hazards or anomalies to the safety team	1	1	-	1
PC24. record and report operational status and site visit findings to the NOC	1	1	-	1

TEL/N4144: Analyse Performance Reports and Conduct Network Optimisation	PC25. ensure proper labelling and tagging of all equipment at the site	1	1	-	1
	Total Marks	30	50	-	20
	PC1. collect network performance data from monitoring systems and reports	1	3	-	-
	PC2. interpret KPIs such as call drop rate, handover success rate, and data throughput	1	2	-	-
	PC3. compare current performance metrics against defined SLAs	1	2	-	1
	PC4. identify patterns or recurring issues affecting service quality	1	2	-	-
	PC5. correlate performance issues with alarms, faults, or customer complaints	1	2	-	-
	PC6. document performance trends and anomalies for management review	1	2	-	1
	PC7. receive and log customer complaints in the ticketing system	1	2	-	-
	PC8. categorise complaints based on severity and service impact	1	2	-	1
	PC9. perform initial diagnosis based on customer inputs and available data	1	2	-	1
	PC10. coordinate with field teams to conduct site checks if required	1	1	-	1
	PC11. provide timely updates to customers on complaint resolution progress	1	1	-	-
	PC12. close complaints after confirmation of service restoration	1	1	-	-
	PC13. schedule preventive maintenance activities in line with vendor and operator guidelines	1	1	-	-
	PC14. perform hardware and software checks on BSC and RAN equipment	1	2	-	-
	PC15. inspect power supply, cooling systems, and grounding at radio sites	1	2	-	-
	PC16. verify backhaul connectivity and performance	1	1	-	-
	PC17. update software patches and firmware where required	1	2	-	-
	PC18. replace faulty modules, cables, or connectors	1	2	-	-
	PC19. analyse cell-level performance to identify congestion or interference	1	2	-	1
	PC20. adjust network parameters to optimise coverage and capacity	1	2	-	1
	PC21. recommend hardware upgrades or configuration changes	1	2	-	1
	PC22. coordinate with RF teams for drive testing and coverage validation	1	2	-	1
	PC23. monitor post-optimisation KPIs to ensure improvement	1	2	-	1

	PC24. maintain logs of all optimisation activities and outcomes	1	2	-	1
	PC25. follow safety protocols while working at BSCs and radio sites	1	1	-	1
	PC26. maintain records of maintenance, complaints, and optimisation work	1	1	-	2
	PC27. comply with regulatory and operator guidelines during all activities	1	1	-	1
	PC28. participate in technical review meetings to share performance updates	1	1	-	1
	PC29. provide recommendations for future network upgrades based on findings	1	1	-	2
	PC30. ensure confidentiality of sensitive network performance data	1	1	-	2
	Total Marks	30	50	-	20
TEL/N4145: Integrate and Configure 5G Network Systems	PC1. review 5G integration plans, network architecture documents, and work orders	1	2	-	1
	PC2. verify hardware and software requirements for planned integration activities	1	2	-	1
	PC3. inspect and validate 5G network hardware for damage or discrepancies before installation	1	2	-	-
	PC4. confirm availability of necessary installation tools, connectors, and accessories	1	2	-	-
	PC5. coordinate with logistics and inventory teams for timely delivery of hardware	1	2	-	1
	PC6. assist in defining network standards for architecture, interfaces, and protocols	1	2	-	-
	PC7. participate in the preparation of spectrum allocation and frequency planning documents	1	1	-	-
	PC8. map existing network infrastructure for compatibility with 5G integration	1	1	-	-
	PC9. identify gaps in current network setup that may affect 5G deployment	1	2	-	1
	PC10. update integration plans as per site-specific constraints and requirements	1	1	-	-
	PC11. position, mount, and connect 5G radio units, antennas, and associated equipment	1	2	-	-
	PC12. connect feeder cables, power supply lines, and fibre connections to 5G equipment	1	2	-	1

	PC13. configure 5G baseband units and radio access network (RAN) controllers	1	2	-	1
	PC14. set parameters for spectrum usage, channel bandwidth, and transmission power	1	2	-	1
	PC15. update and verify firmware and software versions for compatibility	1	1	-	1
	PC16. integrate 5G New Radio units into the existing network	1	1	-	-
	PC17. perform functional and performance tests for coverage, throughput, and latency	1	2	-	1
	PC18. troubleshoot integration-related issues and apply corrective measures	1	2	-	1
	PC19. validate interoperability with existing 4G/LTE and core network elements	1	2	-	-
	PC20. record all test results and integration steps in the project log	1	2	-	1
	PC21. follow organisational safety standards during all integration activities	2	3	-	2
	PC22. comply with environmental norms for installation and equipment disposal	2	2	-	1
	PC23. obtain sign-off from the quality assurance team after integration is complete	1	2	-	1
	PC24. update network diagrams and configuration files with post-integration details	1	2	-	1
	PC25. submit final integration and performance reports to the project manager	2	3	-	2
	PC26. participate in post-project review meetings for lessons learned and process improvement	2	3	-	2
	Total Marks	30	50	-	20
TEL/N4146: Set Standards, Prepare Hardware, and Implement 5G Network	PC1. review 5G technology standards and regulatory requirements	1	2	-	1
	PC2. define architecture for RAN, transport, and core layers	1	2	-	1
	PC3. document hardware and software specifications	1	2	-	-
	PC4. ensure architecture meets capacity, latency, and coverage objectives	1	1	-	-
	PC5. validate design against vendor capabilities and compatibility	1	1	-	-
	PC6. obtain approvals from relevant stakeholders for final architecture	1	2	-	1
	PC7. inspect 5G hardware for physical damage or missing components	1	2	-	-
	PC8. verify hardware specifications against design requirements	1	2	-	-

	PC9. ensure availability of installation tools and accessories	1	1	-	1
	PC10. check firmware versions and update where necessary	1	2	-	-
	PC11. label hardware components as per site layout plan	1	2	-	-
	PC12. ensure proper storage and handling to avoid equipment damage	1	1	-	-
	PC13. analyse spectrum allocation and availability	1	1	-	1
	PC14. plan frequency reuse and channel bandwidths to optimise coverage	1	1	-	-
	PC15. assign carrier aggregation and MIMO configurations	1	2	-	1
	PC16. coordinate with RF team for link budget calculations	1	2	-	-
	PC17. ensure compliance with spectrum usage guidelines and licensing norms	1	1	-	1
	PC18. simulate network performance under different load conditions	1	2	-	1
	PC19. install and integrate gNodeB and associated components	1	2	-	2
	PC20. connect power, backhaul, and fronthaul links as per standards	1	2	-	1
	PC21. configure site parameters including PCI, TAC, and bandwidth	1	2	-	1
	PC22. run initial commissioning scripts and verify status	1	2	-	1
	PC23. conduct test calls and data sessions to validate performance	1	1	-	1
	PC24. resolve any alarms or integration issues before handover	1	1	-	1
	PC25. maintain records of site configuration, test results, and acceptance certificates	1	2	-	1
	PC26. provide training to operations teams on site-specific configurations	1	2	-	1
	PC27. update network inventory with newly implemented sites	1	2	-	1
	PC28. prepare final implementation report for project closure	1	2	-	-
	PC29. ensure all work meets operator and regulatory quality standards	1	1	-	1
	PC30. close project tasks in coordination with the project manager	1	2	-	1
	Total Marks	30	50	-	20
TEL/N6287: Operational Skills	PC1. identify the purpose and audience for each communication	1	2	-	2
	PC2. select the appropriate medium (verbal, written, electronic) for communication	1	2	-	-
	PC3. prepare clear and concise messages tailored to the audience	1	2	-	2
	PC4. review communication materials for accuracy and professionalism	1	2	-	1
	PC5. maintain records of important communications for reference	1	2	-	1
	PC6. greet customers politely and introduce self and organisation	1	2	-	1
	PC7. listen actively to customer queries and confirm understanding	1	2	-	1

	PC8. provide accurate information on services, procedures, and timelines	1	2	-	-
	PC9. respond to customer concerns with empathy and professionalism	1	1	-	1
	PC10. maintain confidentiality of customer information	1	2	-	1
	PC11. follow up with customers to confirm resolution of issues	1	2	-	-
	PC12. share relevant updates and reports with team members in a timely manner	1	2	-	-
	PC13. clarify work instructions and seek guidance when needed	1	2	-	-
	PC14. participate actively in team meetings and discussions	1	1	-	-
	PC15. provide constructive feedback to peers and accept feedback gracefully	1	1	-	1
	PC16. resolve minor conflicts at the workplace through discussion and compromise	1	1	-	-
	PC17. escalate unresolved issues to supervisors as per protocol	1	1	-	-
	PC18. coordinate with vendors, contractors, and service partners	1	2	-	1
	PC19. exchange technical and logistical information clearly and accurately	1	2	-	1
	PC20. follow organisational guidelines for contractual or legal communications	1	2	-	1
	PC21. represent the organisation professionally during external meetings	1	1	-	1
	PC22. maintain transparency in sharing project progress and challenges	2	2	-	2
	PC23. respect cultural, linguistic, and gender diversity in interactions	1	2	-	1
	PC24. adapt communication style to accommodate persons with disabilities	1	2	-	2
	PC25. avoid discriminatory language and maintain a respectful tone	2	2	-	-
	PC26. use simple and clear language when explaining technical matters to non-technical audiences	1	2	-	-
	PC27. confirm mutual understanding before closing discussions	1	2	-	-
	PC28. encourage open and inclusive participation in group discussions	1	2	-	-
	Total Marks	30	50	-	20
TEL/N6285:	PC1. prepare a time schedule for tasks to meet given deadlines.	2	4		
	PC2. identify materials, tools, and equipment required for the assigned job.	3	4	-	1
	PC3. use materials, tools, and equipment efficiently to minimise wastage.	2	3	-	1

Maintain Workplace Safety, Resource Optimization, and Hygiene Standards	PC4. follow organisational practices to optimise energy, water, and other resources.	2	3	-	1
	PC5. identify potential hazards at the workplace and report them to the supervisor.	2	4	-	1
	PC6. use appropriate personal protective equipment (PPE) such as gloves, goggles, helmets, and safety shoes.	2	4	-	3
	PC7. follow safe postures and handling techniques while working with tools and hazardous materials.	2	3	-	3
	PC8. participate in safety drills, fire safety workshops, and first-aid sessions.	2	3	-	1
	PC9. demonstrate safe evacuation procedures in case of an emergency.	2	3	-	1
	PC10. keep the workplace clean, organised, and free from obstacles.	2	4	-	1
	PC11. follow basic hygiene practices such as handwashing, use of sanitiser, and personal cleanliness.	2	4	-	1
	PC12. segregate waste into recyclable and non-recyclable categories using appropriate bins.	2	4	-	1
	PC13. dispose of hazardous and non-hazardous waste as per environmental norms.	2	3	-	2
	PC14. report any breaches in organisational hygiene or sanitation guidelines.	3	4	-	2
	Total Marks	30	50	-	20
DGT/VSQ/N0101: Employability Skills (30 Hours)	Introduction to Employability Skills PC1. understand the significance of employability skills in meeting the job requirements	1	1	-	-
	Constitutional values – Citizenship PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	1	1	-	-
	Becoming a Professional in the 21st Century PC3. explain 21st Century Skills such as self-awareness, behaviour skills, positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset, etc.	1	3	-	-
	Basic English Skills	2	3	-	-

	PC4. speak with others using some basic English phrases or sentences				
	Communication Skills PC5. follow good manners while communicating with others PC6. work with others in a team	1	1	-	-
	Diversity & Inclusion PC7. communicate and behave appropriately with all genders and PwD PC8. report any issues related to sexual harassment	1	1	-	-
	Financial and Legal Literacy 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	3	4	-	-
	Essential Digital Skills PC12. operate digital devices and use their features and applications securely and safely PC13. use internet and social media platforms securely and safely	4	6	-	-
	Entrepreneurship PC14. identify and assess opportunities for potential business PC15. identify sources for arranging money and understand associated financial and legal challenges	3	5	-	-
	Customer Service PC16. identify different types of customers PC17. identify customer needs and address them appropriately PC18. follow appropriate hygiene and grooming standards	2	2	-	-
	Getting ready for apprenticeship & Jobs PC19. create a basic biodata PC20. search for suitable jobs and apply PC21. identify and register apprenticeship opportunities as per requirement	1	3	-	-
	Total Marks	20	30	-	-
	Grand Total	200	330	-	120

Annexure: Assessment Strategy

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

Mention the detailed assessment strategy in the provided template.

<1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on 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:

- Check the Assessment location, date and time
- 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.

3. Assessment Quality Assurance levels/Framework:

- Question bank is created by the Subject Matter Experts (SME) are verified by the other SME
- Questions are mapped to the specified assessment criteria
- Assessor must be ToA certified & trainer must be ToT Certified

4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Centre photographs with signboards and scheme specific branding

5. Method of verification or validation:

- Surprise visit to the assessment location

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored

On the Job:

1. Each module (which covers the job profile of Automotive Service Assistant Technician) will be assessed separately.
2. The candidate must score 60% in each module to successfully complete the OJT.
3. Tools of Assessment that will be used for assessing whether the candidate is having desired skills and etiquette of dealing with customers, understanding needs & requirements, assessing the customer and perform Soft Skills effectively:
 - Videos of Trainees during OJT
 -
4. Assessment of each Module will ensure that the candidate is able to:
 - Effective engagement with the customers
 - Understand the working of various tools and equipment
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Annexure: Acronym and Glossary**Acronym**

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations

NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS 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