



QUALIFICATION FILE-OEM

<Broadband 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	Broadband 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 Broadband Network Technician	
5.	National Qualification Register (NQR) Code &Version <i>(Will be issued after NSQC approval)</i>	QG-04-TL-04422-2025-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 Broadband Network Technician is responsible for the installation, configuration, testing, and maintenance of broadband network infrastructure, including optical fiber cables (OFC), related passive components, and customer premises equipment (CPE). The role involves splicing, jointing, and termination of fiber cables; configuring broadband connectivity; troubleshooting network and customer faults; and maintaining quality, safety, and documentation standards. The technician works in coordination with the Network Operations Center (NOC), field teams, and customers to ensure uninterrupted broadband services in compliance with organisational and industry norms.	

9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1" data-bbox="1030 180 2033 531"> <thead> <tr> <th data-bbox="1030 180 1131 252">S. No.</th><th data-bbox="1131 180 1601 252">Academic/Skill Qualification (with Specialization - if applicable)</th><th data-bbox="1601 180 2033 252">Required Experience (with Specialization - if applicable)</th></tr> </thead> <tbody> <tr> <td data-bbox="1030 252 1131 292">1.</td><td data-bbox="1131 252 1601 292">12th Grade Pass</td><td data-bbox="1601 252 2033 292">No Experience</td></tr> <tr> <td data-bbox="1030 292 1131 371">2.</td><td data-bbox="1131 292 1601 371">Completed 2nd year of 3-year diploma after 10th (See note below)</td><td data-bbox="1601 292 2033 371">No Experience</td></tr> <tr> <td data-bbox="1030 371 1131 451">3.</td><td data-bbox="1131 371 1601 451">Previous relevant Qualification of NSQF Level 3.5</td><td data-bbox="1601 371 2033 451">1.5-year relevant experience*</td></tr> <tr> <td data-bbox="1030 451 1131 531">4.</td><td data-bbox="1131 451 1601 531">Previous relevant Qualification of NSQF Level 3</td><td data-bbox="1601 451 2033 531">3-year relevant experience*</td></tr> </tbody> </table> *experience in Optical Fiber/ Broadband Domain and other relevant fields						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																							
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*																							
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="952 866 2051 1042"> <thead> <tr> <th data-bbox="952 866 1227 962">Training Delivery Modes</th><th data-bbox="1227 866 1384 962">Theory (Hours)</th><th data-bbox="1384 866 1541 962">Practical (Hours)</th><th data-bbox="1541 866 1704 962">OJT Mandatory (Hours)</th><th data-bbox="1704 866 1921 962">OJT Recommended (Hours)</th><th data-bbox="1921 866 2051 962">Total (Hours)</th></tr> </thead> <tbody> <tr> <td data-bbox="952 962 1227 1002">Classroom (offline)</td><td data-bbox="1227 962 1384 1002">200</td><td data-bbox="1384 962 1541 1002">250</td><td data-bbox="1541 962 1704 1002">150</td><td data-bbox="1704 962 1921 1002"></td><td data-bbox="1921 962 2051 1002">600</td></tr> <tr> <td data-bbox="952 1002 1227 1042">Online</td><td data-bbox="1227 1002 1384 1042"></td><td data-bbox="1384 1002 1541 1042"></td><td data-bbox="1541 1002 1704 1042"></td><td data-bbox="1704 1002 1921 1042"></td><td data-bbox="1921 1002 2051 1042"></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)	200	250	150		600	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																				
Classroom (offline)	200	250	150		600																				
Online																									
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/3114.0804																							
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Senior Technician (Broadband 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	Women will be actively encouraged to participate in the Broadband Network domain by ensuring a safe and inclusive workplace, providing equal access to training, and offering flexible work arrangements wherever possible. Awareness campaigns will be conducted in collaboration with training partners and community organisations to promote broadband-related career opportunities among women, including those from rural and semi-urban areas. Training centres will ensure facilities such as separate restrooms, safe transportation options, and gender-sensitisation workshops for staff and trainees. Skill development modules will also integrate digital literacy and entrepreneurial skills, enabling women to work in both field-based and remote technical support roles, thereby expanding their employability in the broadband sector.	
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.	Install and Commission Optical Fiber Cables for Broadband Networks	TEL/N6281 & v1.0	Core	4	5	45	70	35		150	30	50	-	20	100	25
2.	Perform Preventive and Corrective Maintenance of Optical Fiber Networks	TEL/N6282 & v1.0	Core	4	4.5	35	60	40		135	30	50	-	20	100	25
3.	Install and Configure Customer Premises Equipment (CPE) for Broadband Services	TEL/N6283 & v1.0	Core	4	5	50	65	35		150	30	50	-	20	100	20
4.	Troubleshoot and Rectify Broadband Network Faults	TEL/N6284 & v1.0	Core	4	3.5	30	35	40		105	30	50	-	20	100	15
5.	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
6.	Operational Skills	TEL/N6287 & 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	200	250	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 Optical Fiber/ Broadband 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 Optical Fiber/ Broadband 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 Optical Fiber/ Broadband 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 Optical Fiber/ Broadband 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 Optical Fiber/ Broadband 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.

	Latest Skill Gap Study (not older than 2 years) (Yes/No):
1.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):
2.	Government /Industry initiatives/ requirement (Yes/No):
3.	Number of Industry validation provided: 1
4.	Estimated nos. of persons to be trained and employed: 1250
5.	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 optical fiber cable (OFC) installation procedures, safety norms, and manufacturer specifications. - Interpret work orders, route plans, and as-built drawings accurately. - Knowledge of OTDR, power meter, and related testing tools. - Awareness of link budget calculation and performance standards. - Familiarity with environmental norms, waste disposal, and restoration processes	At NSQF Level 4, the job role requires factual and theoretical knowledge in broadband network installation, testing, and maintenance. The role holder must interpret technical documents, follow SOPs, and ensure compliance with manufacturer standards and environmental norms. They apply structured processes for installation and fault repair, integrating both safety and quality considerations while handling a range of predictable tasks.	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	- Skilled in trenching, duct preparation, cable laying, blowing, splicing, and termination. - Proficient in OTDR, power meter testing, and result interpretation. - Ability to configure customer premises equipment (CPE) and establish connectivity. - Execute repairs, re-connectorisation, and	The role demands a variety of cognitive and practical skills, including the use of specialised tools for fiber splicing, termination, and testing. The individual applies knowledge of network protocols, cable protection, and CPE configuration to deliver functional broadband connections. Skills extend to data recording, interpretation of test results, and execution of restoration measures in line with industry best practices.	4

	- replacement of faulty network elements. - Maintain and update installation, maintenance, and test documentation.		
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	- Communicate clearly with supervisors, NOC teams, and customers. - Provide on-site troubleshooting and customer guidance. - Manage time and resources efficiently to meet deadlines. - Follow safety and quality practices in all operations. - Potential to take up small-scale network installation/maintenance contracts.	Aligned with Level 4 descriptors, the role requires the ability to work under limited supervision, manage resources efficiently, and interact professionally with clients. The individual demonstrates readiness for employment through punctuality, quality work, and customer focus. Entrepreneurial potential exists for taking independent installation or maintenance assignments, leveraging technical skills and client-handling abilities.	4
Broad Learning Outcomes/Core Skill	- Read and interpret technical diagrams, route maps, and test reports. - Record and update asset registers and configuration logs. - Use digital tools (MS Office, network diagnostic software) for reporting. - Apply logical thinking for fault diagnosis and problem resolution. - Work collaboratively in team-based assignments.	The job role fosters the ability to read and interpret technical materials, communicate effectively, and document work accurately. Core skills include operating testing equipment, analysing data, and resolving routine network faults. The learner is equipped to adapt these skills across similar roles in telecom infrastructure, thus supporting occupational mobility.	4

Responsibility	• Work independently within defined procedures and supervision. • Ensure completion of assigned tasks to required quality standards. • Take responsibility for tools, equipment, and safety compliance. • Escalate unresolved issues to higher authorities with proper documentation. • Maintain professionalism and customer satisfaction during field operations.	At Level 4, responsibility includes completing work within agreed timelines and quality parameters, maintaining tools and safety compliance, and providing updates to supervisors. The individual is accountable for their own work and for supporting team objectives, ensuring that customer service standards and operational protocols are consistently met.	4
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Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: _____

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Loose buffer tube cables (Single and Ribbon Fibre)	6F, 12F, 24F, 48F (terrestrial)	As required
2	Arial cables	As required	As required
3	Pig tail	As required	As required
4	Patch cords	As required	As required
5	PLB ducts	As required	As required
6	Fiber optic cable stripper	As required	As required
7	Buffer tube stripper	Standard	As required
8	Jacket remover tool	Standard type	As required
9	Cleaver	As required	As required
10	Alcohol wipes & lint-free tissues	Cleaning fiber	60 packs
11	Isopropyl alcohol dispenser bottle	As required	As required
12	Dust blower / canned air	Standard	As required
13	Numbering ferrule	As required	As required
14	Single fiber splicing machine	As required	As required

15	Ribbon Fiber Splicing Machine	As required	As required
16	Splice protection sleeves	As required	As required
17	SJC, BJC, TJC	Cable joints	As required
18	FDF	As required	As required
19	Mechanical splice kit	As required	As required
20	Optical Power Meter & Light Source	Testing tool	As required
21	OTDR	Fiber fault locator	As required
22	Visual Fault Locator (VFL)	As required	As required
23	OLT	Optical Line Terminal	As required
24	ONT	Optical Network Terminal	As required
25	Splitters	As required	As required
26	PC for configuration	Standard setup	As required
27	Laptop/tablet with configuration software	Preloaded software	Optional
28	Network management tools	As required	Optional
29	Wrenches & spanners	As required	As required
30	Screwdrivers	As required	As required
31	Pliers	As required	As required
32	Wire cutters & strippers	As required	As required
33	Kevlar scissors	As required	As required
34	Utility knife / cable slitter	General use	As required
35	Measuring tape / marker pens	As required	As required
36	Safety helmet	IS standard	As required
37	Gloves	Fiber handling	As required
38	Reflective jacket	High visibility	As required
39	Safety harness	Pole/ladder work	As required
40	Ladder	Fiberglass type	As required
41	First aid kit	Site safety	As required
42	Flashlight / headlamp	Rechargeable LED	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/N6281: Install and Commission Optical Fiber Cables for Broadband Networks	PC1. obtain and interpret the installation work order and route plan from the supervisor	1	3	-	2
	PC2. inspect the proposed route to ensure it meets manufacturer specifications and industry standards (bend ratios, clearance, hazards)	2	3	-	2
	PC3. liaise with relevant authorities to obtain necessary clearances and permits	2	5	-	2
	PC4. identify and collect required tools, equipment, and safety gear for installation	2	3	-	2
	PC5. Verify operational condition of tools and test equipment before deployment	2	3	-	1

	PC6. perform trenching, duct preparation, cable laying, and blowing as per standard operating procedures	2	4	-	2
	PC7. execute fiber cable preparation, splicing, jointing, and termination using appropriate tools.	2	3	-	2
	PC8. apply cable sealing and protective measures to prevent environmental damage	2	4	-	-
	PC9. test cable on drum for optical continuity before laying	2	4	-	2
	PC10. conduct initial signal strength and loss tests using OTDR, power meter, and visual fault locator	2	1	-	-
	PC11. label cables, joints, and termination points as per organisational guidelines	2	3	-	1
	PC12. restore the worksite to original condition and dispose waste material as per environmental norms	2	3	-	1
	PC13. record OTDR and power meter test results in prescribed formats	2	3	-	1
	PC14. update installation records including route maps, joint details, and termination points	2	3	-	1
	PC15. submit commissioning reports and test certificates to the supervisor for approval	3	5	-	1
	Total Marks	30	50	-	20
TEL/N6282: Perform Preventive and Corrective Maintenance of Optical Fiber Networks	PC1. obtain the maintenance schedule and as-built drawings from the supervisor.	1	3	-	1
	PC2. verify equipment availability and operational status before starting maintenance.	1	3	-	1
	PC3. inspect optical fiber cable routes for physical damages, hazards, or obstructions.	2	2	-	1
	PC4. conduct OTDR and power meter tests for dark/spare fibers as per standard procedures.	2	3	-	1
	PC5. test end-to-end link for adherence to link budget and identify loss/reflection points.	2	3	-	1
	PC6. perform cleaning and general maintenance of tools and test equipment.	2	3	-	1
	PC7. update maintenance records and asset registers in prescribed formats.	2	3	-	1

	PC8. receive and acknowledge fault notification from NOC or supervisor.	2	4	-	2
	PC9. conduct standard fault diagnosis to localise the fault.	2	4	-	1
	PC10. perform duct integrity tests (air tightness, kink-free, etc.) to ensure service readiness.	2	4	-	1
	PC11. repair or replace faulty cables, joints, or connectors following manufacturer guidelines.	2	3	-	1
	PC12. verify joint activities and ensure proper sealing and environmental protection.	2	3	-	2
	PC13. coordinate with labour teams for trench backfilling and route restoration.	2	3	-	1
	PC14. record jointing test readings and generate acceptance reports.	2	3	-	1
	PC15. prepare detailed maintenance and repair reports for submission.	2	3	-	2
	PC16. escalate unresolved or recurring issues to the supervisor/NOC with supporting test data.	2	3	-	2
	Total Marks	30	50	-	20
TEL/N6283: Install and Configure Customer Premises Equipment (CPE) for Broadband Services	PC1. review customer work order and site requirements from the supervisor.	2	3	-	2
	PC2. identify and collect required cables, connectors, tools, and equipment for installation.	2	3	-	2
	PC3. inspect indoor and outdoor cable routes to ensure accessibility and compliance with cabling norms.	2	2	-	2
	PC4. ensure installation location has adequate power points and proper signal coverage.	2	3	-	2
	PC5. follow organisational SHE (Safety, Health, Environment) guidelines before starting work	2	3	-	2
	PC6. perform cable crimping, splicing, soldering, and connectorisation as per manufacturer standards.	2	4	-	1
	PC7. lay and secure cable wiring from entry point to CPE location, avoiding bends and physical stress points.	2	3	-	1
	PC8. install CPE devices such as modems, routers, switches, and UPS.	2	3	-	1
	PC9. conduct post-installation cable and joint testing for transmission loss and strength.	2	4	-	1
	PC10. dispose of installation waste and restore the work site to its original state.	2	3	-	1

	PC11. access CPE settings and configure parameters such as IP address, gateway, subnet mask, and DNS.	2	4	-	1
	PC12. establish LAN and/or Wi-Fi connectivity between CPE and end-user devices (PC, laptop, smart TV, etc.).	2	4	-	1
	PC13. execute network testing commands such as ping and ipconfig to verify connectivity.	2	3	-	1
	PC14. conduct speed tests and record throughput data for documentation.	2	4	-	1
	PC15. demonstrate basic troubleshooting steps to customers for resolving common connectivity issues.	2	4	-	1
	Total Marks	30	50	-	20
TEL/N6284: Troubleshoot and Rectify Broadband Network Faults	PC1. receive and acknowledge fault notification from NOC, supervisor, or customer.	2	3	-	1
	PC2. gather preliminary fault information, including customer-reported symptoms and service history.	2	3	-	1
	PC3. test cables using OTDR, signal level meters, or other diagnostic tools to localise the fault.	2	-	-	1
	PC4. identify CPE faults through device diagnostics, command-line utilities, or inbuilt software tools.	2	3	-	1
	PC5. determine probable cause of service degradation or outage based on test results and observations.	2	3	-	1
	PC6. repair or replace damaged cables, connectors, or network elements as per standard procedures.	2	6	-	2
	PC7. perform re-connectorisation, splicing, or crimping to restore cable integrity.	2	4	-	2
	PC8. reconfigure or reset CPE to restore connectivity with service provider gateway and end-user devices.	2	4	-	2
	PC9. eliminate sources of interference or signal leakage as per organisational guidelines.	2	3	-	2
	PC10. verify restoration of services by conducting connectivity and speed tests.	2	3	-	2
	PC11. restore any changes made to the worksite during repair to its original state.	2	3	-	2

	PC12. document all troubleshooting steps, test readings, and repair activities in the prescribed format.	2	2	-	1
	PC13. update customer service records with repair details.	2	5	-	1
	PC14. obtain customer sign-off after confirming fault resolution.	2	4	-	-
	PC15. escalate recurring or unresolved faults to the supervisor or NOC for further action.	2	4	-	1
	Total Marks	30	50	-	20
TEL/N6285: Maintain Workplace Safety, Resource Optimization, and Hygiene Standards	PC1. prepare a time schedule for tasks to meet given deadlines.	3	4	-	1
	PC2. identify materials, tools, and equipment required for the assigned job.	2	4	-	1
	PC3. use materials, tools, and equipment efficiently to minimise wastage.	2	3	-	1
	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

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
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 PC4. speak with others using some basic English phrases or sentences	2	3	-	-
	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	3	5	-	-

	PC14. identify and assess opportunities for potential business PC15. identify sources for arranging money and understand associated financial and legal challenges				
	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