



# Model Curriculum

**QP Name: Wireless Technician**

**QP Code: TEL/Q4105**

**QP Version: 3.0**

**NSQF Level: 4**

**Model Curriculum Version: 1.0**

Telecom Sector Skill Council of India (TSSCI),  
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# Training Parameters

|  |  |
|--|--|
| Sector   | Telecom  |
| Sub-Sector                                     | Passive Infrastructure   |
| Occupation                                     | Operation and Maintenance – Passive Infrastructure   |
| Country  | India  |
| NSQF Level                                     | 4  |
| Aligned to NCO/ISCO/ISIC Code                  | NCO-2015/7422.0206   |
| Minimum Educational Qualification & Experience | <p>12th grade pass<br/> <b>OR</b><br/> Completed 2nd year of 3-year diploma (after 10th)<br/> <b>OR</b><br/> Pursuing 2nd year of 3-year regular Diploma (after 10th)<br/> <b>OR</b><br/> 10th grade pass with two years of any combination of NTC/NAC/CITS or equivalent<br/> <b>OR</b><br/> 8th pass plus 2-year NTC plus 1-Year NAC plus 1-Year CITS<br/> <b>OR</b><br/> 10th grade pass and pursuing continuous schooling<br/> With No Experience required<br/> <b>OR</b><br/> Previous relevant Qualification of NSQF Level 3.0 with 3-year relevant experience</p> |
| Pre-Requisite License or Training              | NA   |
| Minimum Job Entry Age                          | 17 Years   |
| Last Reviewed On                               | 31/03/2022   |
| Next Review Date                               | 31/03/2025   |
| NSQC Approval Date                             | 31/03/2022   |
| Version  | 3.0  |
| Model Curriculum Creation Date                 | 31/03/2022   |
| Model Curriculum Valid Up to Date              | 31/03/2025   |
| Model Curriculum Version                       | 1.0  |
| Minimum Duration of the Course                 | 570 Hours, 0 Minutes   |

Maximum Duration of the Course

570 Hours, 0 Minutes

# Program Overview

This section summarizes the end objectives of the program along with its duration.

## Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Wiring and installing equipment at different sites
- Configure equipment and establishing connectivity
- Troubleshooting to localize and rectify faults
- UPS installation and domestic power supply checks
- Organize work and resources as per health and safety standards
- Inclusive Communication interpersonal skills, and sensitization towards gender and persons with disability

## Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| NOS and Module Details   | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|--|-----------------|--------------------|--|--|----------------|
| <b>Bridge Module</b>   | <b>20:00</b>    | <b>10:00</b>       | <b>00:00</b>                             | <b>00:00</b>                               | <b>30:00</b>   |
| Module 1: Introduction to the role of a Wireless Technician  | 20:00           | 10:00              | 00:00                                    | 00:00                                      | 30:00          |
| <b>TEL/N4122–Wiring and installing equipment at different sites</b><br><b>NOS Version No. 2.0</b><br><b>NSQF Level 4</b>   | <b>40:00</b>    | <b>50:00</b>       | <b>30:00</b>                             | <b>00:00</b>                               | <b>120:00</b>  |
| Module 2: Pre-requisites of Wiring and Wi-Fi backhaul equipment  | 40:00           | 50:00              | 30:00                                    | 00:00                                      | 120:00         |
| <b>TEL/N4123– Configuring equipment and establishing connectivity</b><br><b>NOS Version No. 2.0</b><br><b>NSQF Level 4</b> | <b>40:00</b>    | <b>50:00</b>       | <b>30:00</b>                             | <b>00:00</b>                               | <b>120:00</b>  |
| Module 3: Configuring equipment and establishing connectivity  | 40:00           | 50:00              | 30:00                                    | 00:00                                      | 120:00         |
| <b>TEL/N4124– Troubleshooting to localize and rectify faults</b>   | <b>30:00</b>    | <b>30:00</b>       | <b>30:00</b>                             | <b>00:00</b>                               | <b>90:00</b>   |

|  |               |               |               |              |               |
|--|---------------|---------------|---------------|--------------|---------------|
| <b>NOS Version No. 2.0 NSQF Level 4</b>  |               |               |               |              |               |
| Module 4: Troubleshooting to localize and rectify faults   | 30:00         | 30:00         | 30:00         | 00:00        | 90:00         |
| <b>TEL/N4125– UPS installation and domestic power supply checks</b><br><b>NOS Version No. 2.0 NSQF Level 4</b>               | <b>30:00</b>  | <b>30:00</b>  | <b>30:00</b>  | <b>00:00</b> | <b>90:00</b>  |
| Module 5: UPS installation and domestic power supply checks  | 30:00         | 30:00         | 30:00         | 00:00        | 90:00         |
| <b>TEL/N9101 – Organize work and resources as per health and safety standards</b><br><b>NOS Version No. 1.0 NSQF Level 4</b> | <b>10:00</b>  | <b>20:00</b>  | <b>30:00</b>  | <b>00:00</b> | <b>30:00</b>  |
| Module 6: Plan Work Effectively, Optimise Resources and Implement Safety Practices   | 10:00         | 20:00         | 30:00         | 00:00        | 30:00         |
| <b>TEL/N9102 – Interact Effectively with Team Members and Customers</b><br><b>NOS Version No. 1.0 NSQF Level 4</b>           | <b>10:00</b>  | <b>20:00</b>  | <b>30:00</b>  | <b>00:00</b> | <b>30:00</b>  |
| Module 7: Communication and interpersonal skills   | 10:00         | 20:00         | 30:00         | 00:00        | 30:00         |
| DGT/VSQ/N0102 Employability Skills (60 hours)  | 60:00         | 00:00         | 00:00         | 00:00        | 60:00         |
| <b>Total Duration</b>  | <b>240:00</b> | <b>210:00</b> | <b>120:00</b> | <b>00:00</b> | <b>570:00</b> |

# Module Details

## Module 1: Introduction to the Role of a Wireless Technician Mapped to Bridge Module

### Terminal Outcomes:

- Highlight the role and responsibilities of a wireless technician

| <b>Duration:</b> 20:00  | <b>Duration:</b> 10:00   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Explain the role and responsibilities of Wireless Technician</li> <li>• Identify the various electrical and electronic components and their specifications.</li> <li>• Discuss the scope/future and industry of the Wi-Fi broadband</li> </ul> | <ul style="list-style-type: none"> <li>• Explain the processes and technologies used in installation of Wi-Fi broadband.</li> <li>• State the safety, health and environmental policies and regulations for the workplace as well as for telecom sites in general</li> </ul> |
| <b>Classroom Aids:</b>  |  |
| Laptop, white board, marker, projector  |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Documents of standard operating procedures, code of conduct, checklists, installation and troubleshooting tools/equipment's, status report  |  |

## Module 2: Pre-requisites of Wiring and Wi-Fi backhaul equipment Mapped to TEL/N4122, v2.0

### Terminal Outcomes:

- Prepare to install the Wi-Fi system
- Complete documentation and clean-up worksite

| <b>Duration: 40:00</b>   | <b>Duration: 50:00</b>  |
|--|---|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Define work-orders and job sheets, their significance and parameters.</li> <li>• Discuss overall organisational policies, standards, values and processes.</li> <li>• List the different types of cables, connectors, tools and equipment required for installation.</li> <li>• Distinguish between different processes for cable laying and feeder cable laying.</li> <li>• Explain different electrical principles, safety measures to be considered while turning on the Wi-Fi system.</li> <li>• Explain the importance of providing satisfactory customer service and taking customer feedback.</li> <li>• Discuss necessary documentation required for installation and different payment modes.</li> <li>• State the safety norms to be followed and emergency contacts.</li> <li>• Explain escalation matrix for reporting identified incidents, trouble sand/emergencies, e.g., system failures, fire and power failures.</li> </ul> | <ul style="list-style-type: none"> <li>• Collect and infer work-order or job-sheet from the supervisor</li> <li>• Perform steps for obtaining cables/ equipment from the company.</li> <li>• Demonstrate effective communication.</li> <li>• Walk through the steps of Wi-Fi system installation.</li> <li>• Match connectors to the correct type of cable for installation.</li> <li>• Demonstrate the installation and usage of cable termination between equipment and antenna.</li> <li>• Test the cable and joints for transmission loss and strength.</li> <li>• Demonstrate how to write and record appropriate technical forms, activity logs.</li> </ul> |
| <b>Classroom Aids:</b>   |   |
| Laptop, white board, marker, projector   |   |
| <b>Tools, Equipment and Other Requirements</b>   |   |
| Cables and equipment, Wi-Fi backhaul, Service Manual/ User Manuals, Program Authentication Form, Customer Feedback form, Personal Protection Equipment: safety glasses, head protection, warning signs and tapes   |   |



## Module 3: Configuring Equipment and Establishing Connectivity

### Mapped to TEL/N4123, v2.0

#### Terminal Outcomes:

- Configuration of equipment
- Establish connectivity with the service provider gateway
- Establish connectivity between Wi-Fi backhaul equipment and Wi-Fi Access points and end user device
- Record configuration setting and the testing results

| <b>Duration: 40:00</b>  | <b>Duration: 50:00</b>   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Describe the basic concepts of wireless technologies.</li> <li>• Explain features and operating requirements of test equipment.</li> <li>• Importance of following work/procedure instructions.</li> <li>• Explain network topologies, broadband network elements, Gateways, TCP/IP, IP address, subnet masks, Ethernet address, MAC address, IPv4, IPv6.</li> <li>• Highlight basic commands like ping and IP configuration. Explain command line access and command prompts to execute basic commands.</li> <li>• Explain configuration settings at Wi-Fi equipment and Wi-Fi access points.</li> <li>• State the importance of having a first-aid box and help at the workplace.</li> </ul> | <ul style="list-style-type: none"> <li>• Perform the steps of the complete process of connecting laptop/PC with Wi-Fi backhaul equipment.</li> <li>• Analyse test results for connectivity.</li> <li>• Demonstrate the steps to establish connectivity with the service provider gateway.</li> <li>• Perform the steps to establish connectivity between Wi-Fi backhaul equipment, Wi-Fi access points and end user devices.</li> <li>• Demonstrate how to record configuration setting and testing steps.</li> <li>• Test the speed of connection to demonstrate its functioning to the customer.</li> <li>• Execute basic commands on computer.</li> </ul> |
| <b>Classroom Aids:</b>  |  |
| Laptop, white board, marker, projector  |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Wi-Fi backhaul equipment, testers, laptop with required software, User Manuals, Freeboard, working guides, troubleshooting device/systems   |  |

## Module 4: Troubleshoot to Localize and Rectify Faults Mapped to TEL/N4124

### Terminal Outcomes:

- Locate and rectify faults
- Troubleshoot Wi-Fi backhaul equipment (5Ghz)
- Troubleshoot Wi-Fi access points (2.4 GHz)
- Complete documentation and clean-up worksite

|   |  |
|---|--|
| <b>Duration: 30:00</b>  | <b>Duration: 30:00</b>   |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• List different types of cables, cable pairs, feeder cable and connectors.</li> <li>• Explain EMI/EMC concepts and preventive approach for different modems.</li> <li>• Explain the value and process for re-configuring the Wi-Fi backhaul equipment at the service provider gateway or at the end user devices</li> <li>• Explain various indicative lights on the equipment.</li> <li>• List the tools required for fault rectification.</li> <li>• Explain crimping/soldering process.</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate how to locate and inspect faults using portable tester device.</li> <li>• Replace feeder cable/antenna, if found faulty.</li> <li>• Perform the steps for re-configuration of Wi-Fi backhaul equipment, if required</li> <li>• Demonstrate the steps to troubleshoot Wi-Fi backhaul equipment (5Ghz).</li> <li>• Troubleshoot Wi-Fi access points (2.4 GHz).</li> <li>• Record steps undertaken for fault localization/isolation and fault rectification.</li> <li>• Demonstrate functioning of test equipment like network tester, cable and antenna tester etc.</li> <li>• Demonstrate functioning of laptop or other specific portable to carryout fault diagnostics and repairs.</li> </ul> |
| <b>Classroom Aids:</b>  |  |
| White board/ black board marker / chalk, duster, computer or Laptop attached to LCD projector   |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Cables, portable tester device, network tester, antenna tester, laptop with required softwares, soldering machines, Service Manual/ User Manuals<br>Personal Protection Equipment: safety glasses, head protection, rubber gloves, safety footwear, warning signs and tapes, fire extinguisher and first aid kit  |  |

## Module 5: UPS Installation and Domestic Power Supply Checks

### Mapped to TEL/N4125, v2.0

#### Terminal Outcomes:

- Install UPS and check the electrical parameters

|  |  |
|--|--|
| <b>Duration: 30:00</b>   | <b>Duration: 30:00</b>   |
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Discuss the precautions to be taken while handling power supplies.</li> <li>• State the standard UPS and voltage/current norms to be followed in the installation process</li> <li>• Highlight the types of batteries which are compatible with the UPS.</li> <li>• Compare different types and power rating of UPS.</li> </ul> | <ul style="list-style-type: none"> <li>• Test UPS voltage, current and earthing for power supply checks</li> <li>• Demonstrate how to plan installation activities.</li> <li>• Analyse basic wiring diagrams to facilitate correct installation of UPS.</li> <li>• Demonstrate how to install UPS.</li> <li>• Calculate equipment load vis-à-vis UPS rating.</li> <li>• Perform the steps to replace the battery, if faulty</li> </ul> |
| <b>Classroom Aids:</b>   |  |
| White board/ black board marker / chalk, duster, computer or Laptop attached to LCD projector  |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| UPS, wiring diagrams, batteries, service/user manuals, test equipment  |  |

## Module 6: Plan Work Effectively, Optimise Resources and Implement Safety Practices Mapped to TEL/N9101, v1.0

### Terminal Outcomes:

- Plan work effectively, implement safety practices and optimise use of resources

| <b>Duration: 10:00</b>   | <b>Duration: 20:00</b>  |
|--|---|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>Discuss the importance of following the standard operating procedures of the company w.r.t. privacy, confidentiality and security</li> <li>Explain how to develop skills and expertise in the job role</li> <li>List the key performance indicators for the new tasks</li> <li>Discuss correct way to show emotions at workplace</li> <li>Identify the issues with and handle them</li> <li>Describe the importance of timely completion of tasks</li> <li>Explain the importance of escalation matrix</li> <li>Explain the importance of providing and receiving feedback constructively</li> <li>Identify different types of hazards such as illnesses, accidents, fires, etc.</li> <li>List the causes of risks and potential hazards in a work area and the ways to prevent them</li> <li>List the steps to report accident and health related issues as per SOP</li> <li>Explain the importance of maintaining proper posture at work, especially when handling heavy and hazardous materials</li> <li>Analyse ways to optimise usage of resources</li> <li>Discuss how to optimise the use of electrical equipment and appliances to ensure that they conform to safety and resource conservation norms</li> <li>List the importance, cause and effect of greening of jobs</li> <li>Explain the concept of waste management</li> <li>List the methods of waste disposal</li> <li>Identify the different categories of waste for the purpose of segregation</li> </ul> | <ul style="list-style-type: none"> <li>Demonstrate techniques to save on cost and time</li> <li>Demonstrate routine cleaning of tools, equipment and machines to ensure team follows the same practices</li> <li>Use resources such as water judiciously</li> <li>Perform basic steps to check for malfunctions in equipment and report as per SOP</li> <li>Report any breaches in safety and security to the concerned person</li> <li>Illustrate ways to keep work area clean such as mopping spills and leaks, cleaning grease stains, etc.</li> <li>Perform basic steps to check for spills and leaks and plug the same</li> <li>Demonstrate segregation of different types of hazardous waste</li> <li>Illustrate steps to minimise waste</li> <li>Illustrate proper waste disposal procedures and how to dispose-off hazardous waste</li> <li>Illustrate ways to find exact cause of a problem and validate the same in case done by a team member</li> </ul> |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Differentiate between recyclable and non-recyclable waste</li> <li>• List electronic waste disposal procedures</li> <li>• List the common sources of pollution and the ways to minimize it</li> </ul> |  |
| <p><b>Classroom Aids:</b></p>  |  |
| <p>White board/ black board marker / chalk, duster, computer or laptop attached to LCD projector</p>   |  |
| <p><b>Tools, Equipment and Other Requirements</b></p>  |  |
| <p>Personal Protection Equipment: safety glasses, head protection, rubber gloves, safety footwear, warning signs and tapes, fire extinguisher and first aid kit</p>  |  |

## Module 7: Communication and Interpersonal Skills

### Mapped to TEL/N9102, v1.0

#### Terminal Outcomes:

- Develop communication skills, interpersonal skills and sensitization towards gender and persons with disability

| <b>Duration: 10:00</b>   | <b>Duration: 20:00</b>   |
|--|--|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• List the roles and responsibilities and understand organisation’s policies</li> <li>• Discuss the organisational guidelines for dress code, time schedules, language and other soft skill aspects</li> <li>• Discuss the importance of reporting unforeseen disruptions or delays</li> <li>• Explain how to give and receive feedback in a constructive way</li> <li>• List the different methods of communication</li> <li>• Explain the importance of effective communication and interpersonal skills</li> <li>• Discuss how to listen attentively and respond appropriately</li> <li>• Describe the common reasons for interpersonal conflicts and ways of managing them effectively</li> <li>• List the different types of information needed by colleagues and their importance</li> <li>• Discuss the importance of implementing standards, guidelines and practices pertaining to gender sensitivity, including work ethics and workplace etiquette</li> <li>• Discuss about the different types of disabilities along with their respective issues</li> <li>• Explain work ethics, workplace etiquette as well as standards and guidelines for all genders and PwD</li> <li>• List health and safety requirements for persons with disability</li> <li>• Describe the rights, duties and benefits available at workplace for persons with disability</li> <li>• Explain the process of recruiting people with disability for a specific job</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate how to interact with superiors in terms of escalating problems, reporting work completion and receiving feedback</li> <li>• Apply team building skills to assist colleagues in maximising effectiveness and efficiency of carrying out tasks</li> <li>• Demonstrate appropriate communication skills and etiquette while interacting with others</li> <li>• Resolve conflicts with colleagues and adhere to commitment</li> <li>• Demonstrate ideal workplace ethics while interacting with colleagues with respect to sharing information, co-ordinating work and showing respect</li> <li>• Follow organisation’s policy for working with team members</li> <li>• Illustrate importance of team goals over individual goals</li> <li>• Use inclusive language irrespective of the gender/ disability of the person</li> <li>• Demonstrate appropriate behaviour towards all genders and differently abled people</li> </ul> |

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Discuss the specific ways to help persons with disability overcome the challenges</li> </ul> |  |
| <b>Classroom Aids:</b>  |  |
| White board/ black board marker / chalk, duster, computer or laptop attached to LCD projector   |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Sample of escalation matrix, organisation structure.  |  |

## Module 8: On-the-Job Training

### Mapped to Wireless Technician

|   |                                    |
|---|------------------------------------|
| <b>Mandatory Duration: 120:00</b>   | <b>Recommended Duration: 00:00</b> |
| <b>Location: On-Site</b>  |                                    |
| <b>Terminal Outcomes</b>  |                                    |
| <ol style="list-style-type: none"> <li>1. Collate information from work-order given by the supervisor</li> <li>2. Obtain cables/equipment from the company.</li> <li>3. Match connectors to the correct type of cable for installation and then perform installation.</li> <li>4. Test the cable and joints.</li> <li>5. Record data in appropriate technical forms, activity logs.</li> <li>6. Connect the laptop/PC with Wi-Fi backhaul equipment.</li> <li>7. Set up connectivity with the service provider gateway and between Wi-Fi backhaul equipment, Wi-Fi access points and end user devices.</li> <li>8. Test the speed of connection.</li> <li>9. Run basic commands on the computer.</li> <li>10. Locate and inspect faults.</li> <li>11. Perform re-configuration of Wi-Fi backhaul equipment, if required</li> <li>12. Troubleshoot Wi-Fi backhaul equipment (5Ghz) and Wi-Fi access points (2.4 GHz).</li> <li>13. Ensure data is recorded for fault localization/isolation and fault rectification.</li> <li>14. Ensure proper functioning of test equipment like network tester, cable and antenna tester, etc.</li> <li>15. Test UPS voltage, current, and earthing for power supply checks</li> <li>16. Analyse basic wiring diagrams to facilitate the correct installation of UPS.</li> <li>17. Install UPS.</li> <li>18. Compute equipment load vis-à-vis UPS rating.</li> <li>19. Replace the battery, if faulty.</li> </ol> |                                    |



## Module 9: DGT/VSQ/N0102 Employability Skills (60 hours)

### Mapped Wireless Technician

| Mandatory Duration: 60:00 |   |   |                  |
|---------------------------|---|---|------------------|
| Location: On-Site         |   |   |                  |
| S.No.                     | Module Name                                 | Key Learning Outcomes   | Duration (hours) |
| 1.                        | Introduction to Employability Skills        | <ul style="list-style-type: none"> <li>Discuss the Employability Skills required for jobs in various industries.</li> <li>List different learning and employability related GOI and private portals and their usage.</li> </ul>   | 1.5              |
| 2.                        | Constitutional values - Citizenship         | <ul style="list-style-type: none"> <li>Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen.</li> <li>Show how to practice different environmentally sustainable practices.</li> </ul>   | 1.5              |
| 3.                        | Becoming a Professional in the 21st Century | <ul style="list-style-type: none"> <li>Discuss importance of relevant 21st century skills.</li> <li>Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.</li> <li>Describe the benefits of continuous learning.</li> </ul> | 2.5              |
| 4.                        | Basic English Skills                        | <ul style="list-style-type: none"> <li>Show how to use basic English sentences for every day conversation in different contexts, in person and over the telephone.</li> <li>Read and interpret text written in basic English</li> <li>Write a short note/paragraph / letter/e -mail using basic English.</li> </ul>   | 10               |
| 5.                        | Career Development & Goal Setting           | <ul style="list-style-type: none"> <li>Create a career development plan with well-defined short- and long-term goals.</li> </ul>  | 2                |
| 6.                        | Communication Skills                        | <ul style="list-style-type: none"> <li>Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.</li> <li>Explain the importance of active listening for effective communication.</li> <li>Discuss the significance of working collaboratively with others in a team.</li> </ul>   | 5                |
| 7.                        | Diversity & Inclusion                       | <ul style="list-style-type: none"> <li>Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD.</li> <li>Discuss the significance of escalating sexual harassment issues as per POSH act.</li> </ul>   | 2.5              |
| 8.                        | Financial and Legal Literacy                | <ul style="list-style-type: none"> <li>Outline the importance of selecting the right financial institution, product, and service.</li> <li>Demonstrate how to carry out offline and online financial transactions, safely and securely.</li> <li>List the common components of salary and compute income, expenditure, taxes, investments etc.</li> </ul>   | 5                |

|     |   |   |    |
|-----|---|---|----|
|     |   | <ul style="list-style-type: none"> <li>• Discuss the legal rights, laws, and aids.</li> </ul>   |    |
| 9.  | Essential Digital Skills                | <ul style="list-style-type: none"> <li>• Describe the role of digital technology in today's life.</li> <li>• Demonstrate how to operate digital devices and use the associated applications and features, safely and securely.</li> <li>• Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely.</li> <li>• Create sample word documents, excel sheets and presentations using basic features.</li> <li>• Utilize virtual collaboration tools to work effectively.</li> </ul> | 10 |
| 10. | Entrepreneurship                        | <ul style="list-style-type: none"> <li>• Explain the types of entrepreneurship and enterprises.</li> <li>• Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan.</li> <li>• Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement.</li> <li>• Create a sample business plan, for the selected business opportunity.</li> </ul>  | 7  |
| 11  | Customer Service                        | <ul style="list-style-type: none"> <li>• Describe the significance of analyzing different types and needs of customers.</li> <li>• Explain the significance of identifying customer needs and responding to them in a professional manner.</li> <li>• Discuss the significance of maintaining hygiene and dressing appropriately.</li> </ul>  | 5  |
| 12  | Getting Ready for Apprenticeship & Jobs | <ul style="list-style-type: none"> <li>• Create a professional Curriculum Vitae (CV).</li> <li>• Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively.</li> <li>• Discuss the significance of maintaining hygiene and confidence during an interview.</li> <li>• Perform a mock interview.</li> <li>• List the steps for searching and registering for apprenticeship opportunities.</li> </ul>   | 8  |

**LIST OF TOOLS & EQUIPMENT FOR EMPLOYABILITY SKILLS**

| S No. | Name of the Equipment  | Quantity    |
|-------|--|-------------|
| 1.    | Computer (PC) with latest configurations – and Internet connection with standard operating system and standard word processor and worksheet software (Licensed)<br>(all software should either be latest version or one/two version below) | As required |
| 2.    | UPS  | As required |
| 3.    | Scanner cum Printer  | As required |
| 4.    | Computer Tables  | As required |
| 5.    | Computer Chairs  | As required |
| 6.    | LCD Projector  | As required |
| 7.    | White Board 1200mm x 900mm   | As required |

*Note: Above Tools & Equipment not required, if Computer LAB is available in the institute.*

# Annexure

## Trainer Requirements (Wireless Technician)

| Trainer Prerequisites             |  |                              |                                 |                     |                |                          |
|-----------------------------------|--|------------------------------|---------------------------------|---------------------|----------------|--------------------------|
| Minimum Educational Qualification | Specialization   | Relevant Industry Experience |                                 | Training Experience |                | Remarks                  |
|                                   |  | Years                        | Specialization                  | Years               | Specialization |                          |
| Diploma                           | Science/Electronics/ Telecom/IT and other related domains  | 2                            | Optical Fiber/ Broadband Domain | 0                   | NA             | Eligible for ToT program |
| Graduate                          | Science/Electronics/ Telecom/IT and other relevant domains | 1                            | Optical Fiber/ Broadband Domain | 0                   | NA             | Eligible for ToT program |

| Trainer Certification  |   |
|--|---|
| Domain Certification   | Platform Certification  |
| Job Role: “Wireless Technician Level 4”<br>“TEL/Q4105 v3.0”, Minimum accepted score is 80% | Job Role: “Trainer (VET and Skills)”,<br>“MEP/Q2601 v2.0”,<br>Minimum Accepted score is 80% |

## Assessor Requirements (Wireless Technician)

| Assessor Prerequisites            |  |                              |                                 |                     |                |                          |
|-----------------------------------|--|------------------------------|---------------------------------|---------------------|----------------|--------------------------|
| Minimum Educational Qualification | Specialization   | Relevant Industry Experience |                                 | Training Experience |                | Remarks                  |
|                                   |  | Years                        | Specialization                  | Years               | Specialization |                          |
| Diploma                           | Science/Electronics/ Telecom/IT and other related domains  | 2                            | Optical Fiber/ Broadband Domain | 0                   | NA             | Eligible for ToA program |
| Graduate                          | Science/Electronics/ Telecom/IT and other relevant domains | 1                            | Optical Fiber/ Broadband Domain | 0                   | NA             | Eligible for ToA program |

| Assessor Certification  |   |
|---|---|
| Domain Certification  | Platform Certification  |
| Job Role: “Wireless Technician Level 4” “TEL/Q4105 v3.0”, Minimum accepted score is 80% | Job Role: “Assessor (VET and Skills)” “MEP/Q2701 v2.0”, Minimum accepted score is 80% |

## Trainer Requirements (Employability Skills 60 hours)

| Trainer Prerequisites                      |  |                              |                |                     |                     |   |
|--|--|------------------------------|----------------|---------------------|---------------------|---|
| Minimum Educational Qualification          | Specialization   | Relevant Industry Experience |                | Training Experience |                     | Remarks   |
|  |  | Years                        | Specialization | Years               | Specialization      |   |
| Graduate/CITS                              | Any discipline   |                              |                | 2                   | Teaching experience | Prospective ES trainer should:  |
| Current ITI trainers                       | Employability Skills Training (3 days full-time course done between 2019-2022) |                              |                |                     |                     | <ul style="list-style-type: none"> <li>• have good communication skills</li> <li>• be well versed in English</li> <li>• have digital skills</li> <li>• have attention to detail</li> <li>• be adaptable</li> <li>• have willingness to learn</li> </ul> |
| Certified current EEE trainers (155 hours) | from Management SSC (MEPSC)  |                              |                |                     |                     |   |
| Certified Trainer                          | Qualification Pack: Trainer (MEP/Q0102)  |                              |                |                     |                     |   |

| Trainer Certification  |                        |
|--|------------------------|
| Domain Certification   | Platform Certification |
| Certified in 60-hour Employability NOS (2022), with a minimum score of 80%<br>OR<br>Certified in 120-, 90-hour Employability NOS (2022), with a minimum score of 80% | NA                     |

## Master Trainer Requirements (Employability Skills 60 hours)

| Master Trainer Prerequisites      |  |                              |                |                     |   |   |
|-----------------------------------|--|------------------------------|----------------|---------------------|---|---|
| Minimum Educational Qualification | Specialization                                 | Relevant Industry Experience |                | Training Experience |   | Remarks   |
|                                   |  | Years                        | Specialization | Years               | Specialization  |   |
| Graduate/CITS                     | Any discipline                                 |                              |                | 3                   | Employability Skills curriculum training experience with an interest to train as well as orient other peer trainers | Prospective ES Master trainer should: <ul style="list-style-type: none"> <li>• have good communication skills</li> <li>• be well versed in English</li> <li>• have basic digital skills</li> </ul>  |
| Certified Master Trainer          | Qualification Pack: Master Trainer (MEP/Q2602) |                              |                | 3                   | EEE training of Management SSC (MEPSC) (155 hours)  | <ul style="list-style-type: none"> <li>• have attention to detail</li> <li>• be adaptable</li> <li>• have willingness to learn</li> <li>• be able to grasp concepts fast and is creative with teaching practices and likes sharing back their learning with others</li> </ul> |

| Master Trainer Certification  |                        |
|---|------------------------|
| Domain Certification  | Platform Certification |
| Certified in 60-hour Employability NOS (2022), with a minimum score of <b>90%</b> .<br><br><b>OR</b><br>Certified in 120-, 90-hour Employability NOS (2022), with a minimum score of <b>90%</b> | NA                     |

## Assessment Strategy

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 level 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

### Assessment Strategy (Employability Skills 60 hours)

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.

## References

## Glossary

| Term                         | Description   |
|------------------------------|---|
| <b>Declarative Knowledge</b> | Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.   |
| <b>Key Learning Outcome</b>  | Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |
| <b>OJT (M)</b>               | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site  |
| <b>OJT (R)</b>               | On-the-job training (Recommended); trainees are recommended the specified hours of training on site   |
| <b>Procedural Knowledge</b>  | Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.  |
| <b>Training Outcome</b>      | Training outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of the training</b> .  |
| <b>Terminal Outcome</b>      | Terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module</b> . A set of terminal outcomes help to achieve the training outcome.   |



## Acronyms and Abbreviations

| Term | Description                             |
|------|---|
| QP   | Qualification Pack                      |
| NSQF | National Skills Qualification Framework |
| NSQC | National Skills Qualification Committee |
| NOS  | National Occupational Standards         |
| SOP  | Standard Operating Procedures           |
| CRM  | Customer Relationship Management        |
| AC   | Air Conditioner                         |
| DG   | Diesel Generator                        |
| PIU  | Power Interface Unit                    |
| SMPS | Switch Mode Power Supply                |
| BB   | Battery Bank                            |
| IPMS | Integrated Power Management System      |
| AMF  | Auto Man Failure                        |
| PPE  | Personal Protective Equipment           |
| FM   | Field Maintenance                       |
| PwD  | Persons with Disabilities               |
| EB   | Electricity Board                       |
| MCB  | Miniature Circuit Breaker               |
| NOC  | Network Operating Centre                |
| SLA  | Service Level Agreement                 |
| ES   | Employability Skills                    |