



# Model Curriculum

**QP Name: Optical Fiber Splicer**

**QP Code: TEL/Q6400**

**QP Version: 4.0**

**NSQF Level: 3**

**Model Curriculum Version: 1.0**

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## Training Parameters

<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Passive Infrastructure
<b>Occupation</b>	Operations and Maintenance – Passive Infrastructure
<b>Country</b>	India
<b>NSQF Level</b>	3
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/7422.0802
<b>Minimum Educational Qualification and Experience</b>	Grade 9 <b>OR</b> Grade 8 pass and pursuing continuous schooling in regular school with vocational subject <b>OR</b> 8th grade pass with 1-year relevant experience <b>OR</b> 5th grade pass with 4-year relevant experience
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	15 Years
<b>Last Reviewed On</b>	30/12/2021
<b>Next Review Date</b>	30/12/2024
<b>NSQC Approval Date</b>	30/12/2021
<b>QP Version</b>	4.0
<b>Model Curriculum Creation Date</b>	30/12/2021
<b>Model Curriculum Valid Up to Date</b>	30/12/2024
<b>Model Curriculum Version</b>	1.0
<b>Minimum Duration of the Course</b>	420 Hours, 0 Minutes
<b>Maximum Duration of the Course</b>	420 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 will be able to:

- Perform efficient splicing of optical fiber cable
- Test effectiveness of the optical fiber
- Maintain OTDR (Optical Time Domain Reflectometer) register
- Optimize resources, work efficiently and adhere to safety standards
- Interact effectively with others while being sensitive of gender and persons with disabilities

### Compulsory Modules

The table lists the modules, their duration and mode of delivery.

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: Role and Responsibilities of an Optical Fiber Splicer	20:00	10:00	00:00	00:00	30:00
<b>TEL/N6400– Splice Optical Fiber</b> <b>NOS Version No. 2.0</b> <b>NSQF Level 3</b>	<b>40:00</b>	<b>50:00</b>	<b>60:00</b>	<b>00:00</b>	<b>150:00</b>
Module 2: Prepare for Splicing Operations for New Installation	20:00	20:00	30:00	00:00	70:00
Module 3: Maintenance and Splicing of Optical Fiber	20:00	30:00	30:00	00:00	80:00
<b>TEL/N6401– Test Effectiveness and Record Test Results</b> <b>NOS Version No. 2.0</b> <b>NSQF Level 3</b>	<b>40:00</b>	<b>50:00</b>	<b>60:00</b>	<b>00:00</b>	<b>150:00</b>
Module 4: Fiber Testing and Documentation	40:00	50:00	60:00	00:00	150:00
<b>TEL/N9101- Organize Work and Resources as Per Health and Safety Standard</b> <b>NOS Version No. 1.0</b>	<b>10:00</b>	<b>20:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>

<b>NSQF Level 4</b>					
Module 5: Plan Work Effectively, Optimise Resources and Implement Safety Practices	10:00	20:00	00:00	00:00	30:00
<b>TEL/N9102 – Interact effectively with Team Members and Customers</b> <b>NOS Version No. 1.0</b> <b>NSQF Level 4</b>	<b>10:00</b>	<b>20:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>
Module 6: Communication and Interpersonal Skills	10:00	20:00	00:00	00:00	30:00
DGT/VSQ/N0101 Employability Skills (30 Hours)	30:00	00:00	00:00	00:00	30:00
<b>Total Duration</b>	<b>150:00</b>	<b>150:00</b>	<b>120:00</b>	<b>00:00</b>	<b>420:00</b>

# Module Details

## Module 1: Role and Responsibilities of an Optical Fiber Splicer

### Mapped to Bridge Module

#### Terminal Outcomes:

- Describe the role and responsibilities of an Optical Fiber Splicer
- Explain the scope of work for an Optical Fiber Splicer

<b>Duration: 20:00</b>	<b>Duration: 10:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the size and scope of the Telecom industry and Passive Infrastructure sub-sector</li> <li>• Outline the course objectives and outcomes</li> <li>• Identify the roles and responsibilities of an Optical Fiber Splicer</li> <li>• Discuss the career progression of an Optical Fiber Splicer in the Telecom industry</li> <li>• Explain the basics of telecom and the terminologies used in the work process</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare for the role of an Optical fiber splicer by visiting a work site and interacting with others</li> <li>• Analyse the requirements of the course and prepare as per the pre-requisites of the course</li> <li>• Prepare a fibre optic technician for splicing</li> <li>• Demonstrate how to installing cables inside of homes and businesses or servicing and outdoor lines at a communications company</li> <li>• Demonstrate how to utilize all varieties of cable construction equipment, cable and safety test equipment, and all types of splicing activity</li> </ul>
<b>Classroom Aids</b>	
Whiteboard, Markers, Duster, Projector, Laptop, Presentation	
<b>Tools, Equipment and Other Requirements</b>	
NA	

## Module 2: Prepare for Splicing Operations for New Installation

### Mapped to TEL/N6400, v2.0

#### Terminal Outcomes:

- Manage tools and spares
- Prepare the cable for splicing for new installation

<b>Duration:</b> 20:00	<b>Duration:</b> 20:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the characteristics of Optical Fiber, (like refraction, polarization, attenuation, dispersion, etc.)</li> <li>• Explain the uses of various optical equipment (spool, joint closure, connectors, splicer and cleaver), optical test equipment (Optical Time Domain Reflectometer (OTDR), power meter, etc.), and other tools and equipment, like joint kits, pigtails, patch cords, FDF (Fiber Distribution Frame), ODB (Optical Distribution Box) connector, protection sleeves and heat shrink, etc.</li> <li>• Describe fault analysis procedures and safety measures for different tools and mechanical equipment</li> <li>• Discuss the importance of calibrating the test equipment</li> <li>• Explain the color coding of optical fiber cable</li> <li>• Discuss the steps of preparing the cable for splicing for new installation</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the tools and equipment required for optical fiber splicing Demonstrate the operations of various tools and equipment required for optical fiber splicing</li> <li>• Inspect Optical Time Domain Reflectometer (OTDR), Power Meter, Joint Closure, Connectors, Splicer, Cleaver, and other mechanical tools/equipment for any fault and calibration status</li> <li>• Employ appropriate practices to find out sheath damage in the cable and secure the cable to avoid the damage</li> <li>• Demonstrate the steps to prepare the cable for splicing for new installation</li> </ul>
<b>Classroom Aids</b>	
Training kit (Trainer guide, Presentations), Whiteboard, Markers, Duster, Computer, Projector, Participant Handbook	
<b>Tools, Equipment and Other Requirements</b>	
Optical cable test equipment (Optical Time Domain Reflectometer (OTDR), power meter, etc.), Optical equipment (Spool, Joint closure, Connectors, Splicer and Cleaver), Joint kits, Pigtails, Patch cords, FDF (Fiber Distribution Frame), ODB (Optical Distribution Box) Connector, Protection sleeves and Heat shrink, RCC (Reinforced Cement Concrete) joint chambers, Cable drum	

## Module 3: Maintenance and Splicing of Optical Fiber

### Mapped to TEL/N6400, v2.0

#### Terminal Outcomes:

- Perform maintenance activities of the laid optical fiber
- Complete fiber splicing operations for new installation

<b>Duration: 20:00</b>	<b>Duration: 30:00</b>
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Discuss the principles of optical transport media</li> <li>• Discuss signal strength and quality KPIs of optical fiber cables</li> <li>• Explain the processes of preventive maintenance of the laid optical fiber cables</li> <li>• Interpret the standard operating procedures while performing preventive maintenance of the laid optical fiber cables</li> <li>• Describe the procedures of sealing joints, heat shrinking/multi-diameter seals/mechanical seals, etc.</li> <li>• Elaborate the optical fiber splicing process</li> <li>• Discuss commonly occurring alignment errors, like Axial, Angular and Poor end finish and the ways to avoid these</li> <li>• List the do's and don'ts while performing splicing operations</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Perform regular maintenance activities for the laid fiber cable</li> <li>• Perform sealing joint closure heat shrinking/multi-diameter seals/mechanical seals, etc.</li> <li>• Demonstrate splicing the optical fiber</li> <li>• Draft a sample report to escalate any fault or issues to the Supervisor</li> </ul>
<p><b>Classroom Aids</b></p> <p>Training kit (Trainer guide, Presentations), Whiteboard, Markers, Duster, Computer, Projector, Participant Handbook</p>	
<p><b>Tools, Equipment and Other Requirements</b></p> <p>Optical cable test equipment (Optical Time Domain Reflectometer (OTDR), power meter, etc.), Optical equipment (Spool, Joint closure, Connectors, Splicer and Cleaver), Joint kits, Pigtails, Patch cords, FDF (Fiber Distribution Frame), ODB (Optical Distribution Box) Connector, Protection sleeves and Heat shrink, RCC (Reinforced Cement Concrete) joint chambers, Cable drum</p>	



## Module 4: Fiber Testing and Documentation

### Mapped to TEL/N6401, v2.0

#### Terminal Outcomes:

- Perform the activities to test effectiveness of spliced optical fiber
- Maintain OTDR (Optical Time Domain Reflectometer) register

<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>• Understand the working procedures of OTDR (Optical Time Domain Reflectometer) and Power meter</li> <li>• Discuss the methods of testing the effectiveness of optical fiber cable using OTDR (Optical Time Domain Reflectometer)</li> <li>• Elaborate the need and the method/procedure to measure the optical losses in the optical fiber cable</li> <li>• Discuss how to interpret the test result to localize faults and measure optical losses</li> <li>• Explain the importance of adhering to the standards and follow optimal values of OTDR, power meter and light meter for the test results</li> <li>• Discuss commonly occurring hazards, like Earth Potential Rise (EPR) while carrying out the work</li> <li>• Describe OTDR (Optical Time Domain Reflectometer) report generation process</li> <li>• Discuss the standard procedures of reporting and documentation</li> </ul>	<ul style="list-style-type: none"> <li>• Perform various test to verify the quality of installation</li> <li>• Demonstrate how to measure optical loss</li> <li>• Perform the procedure of trouble shooting of optical fiber</li> <li>• Record all jointing test readings and analyse the test result to generate the acceptance report</li> <li>• Perform the procedure to generate a sample report using the results/findings in proper formats</li> </ul>
<b>Classroom Aids</b>	
Training kit (Trainer guide, Presentations), Whiteboard, Markers, Duster, Computer, Projector, Participant Handbook	
<b>Tools, Equipment and Other Requirements</b>	
Optical cable test equipment (Optical Time Domain Reflectometer (OTDR), power meter, etc.), Related Standard Operating Procedures (SOPs), Format of various related reports	

## Module 5: Plan Work Effectively, Optimise Resources and Implement Safety Practices Mapped to TEL/N9101, v1.0

### Terminal Outcomes:

- Explain how to 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>List the recent skills and technologies prevalent in the telecom industry.</li> <li>Discuss the commonly occurring problems with their causes and solutions.</li> <li>State the importance of keeping the workplace clean, safe and tidy.</li> <li>List different types of hazards and the procedure to report it to the supervisor.</li> <li>List the precautionary steps one needs to follow while handling hazardous materials.</li> <li>State the importance of participating in fire drills and other safety workshops.</li> <li>Discuss the significance of conforming to basic hygiene practices such as washing hands, using alcohol-based hand sanitizers.</li> <li>List the different methods of cleaning, disinfection, sanitization, etc.</li> <li>Discuss the importance of self-quarantine or self-isolation.</li> <li>Explain the path of disease transmission.</li> <li>Discuss organizational hygiene and sanitation guidelines and ways of reporting breaches/gaps, if any.</li> <li>Explain the ways to optimize usage of resources.</li> <li>Discuss various methods of waste management and disposal.</li> <li>List the different categories of waste for the purpose of segregation.</li> <li>Differentiate between recyclable and non-recyclable waste.</li> <li>State the importance of using appropriate color dustbins for different types of waste.</li> <li>Discuss the common sources of pollution and ways to minimize it.</li> </ul>	<ul style="list-style-type: none"> <li>Prepare a time schedule to complete the tasks on the given time.</li> <li>Demonstrate the use of safety equipment such as goggles, gloves, ear plugs, shoes, etc.</li> <li>Demonstrate the correct postures while working and handling hazardous materials at the workplace.</li> <li>Demonstrate how to evacuate the workplace in case of an emergency.</li> <li>Show how to sanitize and disinfect one's work area regularly.</li> <li>Demonstrate the correct way of washing hands using soap and water.</li> <li>Demonstrate the correct way of sanitizing hands using alcohol-based hand rubs.</li> <li>Display the correct way of wearing and removing PPE such as face masks, hand gloves, face shields, PPE suits, etc.</li> <li>Demonstrate warning labels, symbols and other related signages.</li> <li>Perform basic checks to identify any spills and leaks and that need to be plugged /Stopped.</li> <li>Demonstrate different disposal techniques depending upon different types of waste.</li> <li>Employ different ways to clean and check if equipment/machines are functioning as per requirements and report malfunctioning, if observed.</li> <li>Demonstrate ways for efficient utilization of material and water.</li> </ul>
<b>Classroom Aids</b>	

White board/ black board marker / chalk, Duster, Computer or Laptop attached to LCD projector

**Tools, Equipment and Other Requirements**

Personal Protection Equipment: Safety glasses, Head protection, Rubber gloves, Safety footwear, Warning signs and tapes, Fire extinguisher and First aid kit

## Module 6: Communication and Interpersonal Skills

Mapped to TEL/N9102, v1.0

### Terminal Outcomes:

- Discuss how to communicate effectively and develop interpersonal skills
- Explain the importance of developing sensitivity towards differently abled people

<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. priority, confidentiality and security</li> <li>• Outline the organizational structure to receive work instruction and report issues to the supervisor</li> <li>• Discuss the importance of having timely discussions with all genders to avoid repeated errors</li> <li>• State the importance of coordinating and resolving conflicts with the team members to achieve smooth work flow</li> <li>• Discuss about the different types of disabilities with their respective issues</li> <li>• State the work ethics, workplace etiquettes 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 person with disability</li> <li>• Explain the process of recruiting people with disability for a specific job</li> <li>• Discuss the specific ways to help people with disability to overcome the challenges</li> </ul>	<ul style="list-style-type: none"> <li>• Use different modes of communication as per requirement and need</li> <li>• Prepare a sample report of the commonly occurring errors and their solutions</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> <li>• Prepare a list of institutes and government schemes that help PwD in overcoming challenges</li> <li>• Demonstrate the ideal behaviour with a PwD in an organization</li> </ul>
<b>Classroom Aids</b>	
Whiteboard and Markers, Chart paper and sketch pens, LCD Projector and Laptop for presentations	
<b>Tools, Equipment and Other Requirements</b>	
Sample of escalation matrix, organisation structure	

## Module 7: On-the-Job Training

### Mapped to Optical Fiber Splicer

<b>Mandatory Duration:</b> 120:00	<b>Recommended Duration:</b> 00:00
<b>Location:</b> On-Site	
<b>Terminal Outcomes</b>	
<ol style="list-style-type: none"> <li>1. Collect the tools and equipment required for optical fiber splicing from the store.</li> <li>2. Perform the operations using various tools and equipment as per splicing SOPs.</li> <li>3. Check the Optical Time Domain Reflectometer (OTDR), Power Meter, Joint Closure, Connectors, etc. to identify and fix any fault and calibration status.</li> <li>4. Identify any sheath damage or wear-tear in the cable.</li> <li>5. Protect the cable from any damages.</li> <li>6. Prepare the cable for splicing at new installation site.</li> <li>7. Demonstrate how to conduct periodic and corrective maintenance of the fiber cable.</li> <li>8. Ensure that the sealing joint are properly closed.</li> <li>9. Check that the joints are protected from heat shrinking and other such issues.</li> <li>10. Perform the steps for splicing the optical fiber.</li> <li>11. Prepare a report to inform the supervisor about any faults or issues.</li> <li>12. Test the installation and joints to verify the quality of installation.</li> <li>13. Measure optical loss for the installation using appropriate tools and equipment.</li> <li>14. Troubleshoot any issues in the optical fiber.</li> <li>15. Perform various other tests to ensure the correct and proper functioning and installation of cable.</li> <li>16. Record test readings and the test results to generate the acceptance report to be shared with the supervisor.</li> <li>17. Prepare a report to record the results/findings in proper formats.</li> <li>18. Ensure that all SOPs and safety measures have been followed during splicing and installation.</li> <li>19. Clean and clear the site for debris or any other cables/joint parts.</li> <li>20. Check that all installed cables and joints are properly secured after site cleaning and closure.</li> </ol>	

## Module 8: DGT/VSQ/N0101 Employability Skills (30 hours)

### Mapped to Optical Fiber Splicer

**Mandatory Duration: 30:00**

**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 importance of Employability Skills in meeting the job requirements.</li> </ul>	1
2.	Constitutional values - Citizenship	<ul style="list-style-type: none"> <li>Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.</li> <li>Show how to practice different environmentally sustainable practices.</li> </ul>	1
3.	Becoming a Professional in the 21st Century	<ul style="list-style-type: none"> <li>Discuss 21st century skills.</li> <li>Display positive attitude, self-motivation, problem solving, time management skills and continuous learning mindset in different situations.</li> </ul>	1
4.	Basic English Skills	<ul style="list-style-type: none"> <li>Use appropriate basic English sentences/phrases while speaking.</li> </ul>	2
5.	Communication Skills	<ul style="list-style-type: none"> <li>Demonstrate how to communicate in a well-mannered way with others.</li> <li>Demonstrate working with others in a team.</li> </ul>	4
6.	Diversity & Inclusion	<ul style="list-style-type: none"> <li>Show how to conduct oneself appropriately with all genders and PwD.</li> <li>Discuss the significance of reporting sexual harassment issues in time.</li> </ul>	1
7.	Financial and Legal Literacy	<ul style="list-style-type: none"> <li>Discuss the significance of using financial products and services safely and securely.</li> <li>Explain the importance of managing expenses, income, and savings.</li> <li>Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws.</li> </ul>	4
8.	Essential Digital Skills	<ul style="list-style-type: none"> <li>Show how to operate digital devices and use the associated applications and features, safely and securely.</li> <li>Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely.</li> </ul>	3
9.	Entrepreneurship	<ul style="list-style-type: none"> <li>Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges.</li> </ul>	7
10.	Customer Service	<ul style="list-style-type: none"> <li>Differentiate between types of customers.</li> <li>Explain the significance of identifying customer needs and addressing them.</li> <li>Discuss the significance of maintaining hygiene and dressing appropriately.</li> </ul>	4
11	Getting ready for apprenticeship & Jobs	<ul style="list-style-type: none"> <li>Create a biodata.</li> <li>Use various sources to search and apply for jobs.</li> <li>Discuss the significance of dressing up neatly and maintaining hygiene for an interview.</li> <li>Discuss how to search and register for apprenticeship opportunities.</li> </ul>	2

**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) (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 (Optical Fiber Splicer)

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Class 12th <b>OR</b> Class 10 <sup>th</sup> + ITI <b>OR</b> Diploma	Science/Electronics/ Telecom/IT and other relevant fields	1	Optical Fiber Domain	0	NA	Eligible for ToT program

Trainer Certification	
Domain Certification	Platform Certification
Job Role: "Optical Fiber Splicer Level 3" "TEL/Q6400 v2.0", Minimum accepted score is 80%	Job Role: "Trainer", "MEP/Q2601 v1.0", Minimum accepted score is 80%



## Assessor Requirements (Optical Fiber Splicer)

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Class 12th <b>OR</b> Class 10 <sup>th</sup> + ITI <b>OR</b> Diploma	Science/Electronics/ Telecom/IT and other relevant fields	1	Optical Fiber Domain	0	NA	Eligible for ToA Program

Assessor Certification	
Domain Certification	Platform Certification
Job Role: “Optical Fiber Splicer Level 3” “TEL/Q6400, v2.0”, Minimum accepted score is 80%	Job Role: “Assessor” “MEP/Q2701 v1.0”, Minimum accepted score is 80%

## Trainer Requirements (Employability Skills 30 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 30-hour Employability NOS (2022), with a minimum score of <b>80%</b>  <b>OR</b> Certified in 120- OR 90- OR 60-hour Employability NOS (2022), with a minimum score of <b>80%</b>	NA

## Master Trainer Requirements (Employability Skills 30 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 peertrainers	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 MasterTrainer	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 30-hour Employability NOS (2022), with a minimum score of <b>90%</b> .  <b>OR</b> Certified in 120- OR 90- OR 60-hour EmployabilityNOS (2022), with a minimum score of <b>90%</b>	NA

## Assessment Strategy

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

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
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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 HardDrives

### **Assessment Strategy (Employability Skills 30 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.

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## 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
AC	Air Conditioner
DG	Diesel Generator
PIU	Power Interface Unit
SMPS	Switch Mode Power Supply
BB	Battery Bank
IPMS	Integrated Power Management System
OPCO	Operating Company
PM	Preventive Maintenance
OPEX	Operating Expenditure
PPE	Personal Protective Equipment
RCA	Root Cause Analysis
PwD	Persons with Disabilities
CRM	Customer Relationship Management
EB	Electricity Board
RFS	Radio Frequency Services
NOC	Network Operating Centre
SRN	Service Request Number
ES	Employability Skills