



Model Curriculum

QP Name: Telecom E-Waste Handler

QP Code: TEL/Q2400

QP Version: 4.0

NSQF Level: 3

Model Curriculum Version: 1.0

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Training Parameters

Sector	Telecom
Sub-Sector	Handset
Occupation	E-Waste Management
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/9611.0201
Minimum Educational Qualification & Experience	Grade 9 OR Grade 8 pass and pursuing continuous schooling in regular school with vocational subject OR 8th grade pass with 1-year relevant experience OR 5th grade pass with 4-year relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	15 Years
Last Reviewed On	30/12/2021
Next Review Date	30/12/2024
NSQC Approval Date	30/12/2021
QP Version	4.0
Model Curriculum Creation Date	30/12/2021
Model Curriculum Valid Up to Date	30/12/2024
Model Curriculum Version	1.0
Minimum Duration of the Course	420 Hours, 0 Minutes
Maximum Duration of the Course	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 should have acquired the listed knowledge and skills.

- Identify the role, responsibilities and scope of work of a Telecom E-Waste Handler.
- Implement various techniques to promote appropriate e-waste handling and disposal.
- Discuss how to plan work effectively, implement safety practices and optimize use of resources.
- Demonstrate how to communicate, develop interpersonal skills and become gender and Person with Disability (PwD) sensitive.

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
Bridge Module	20:00	10:00	00:00	00:00	30:00
Module 1: Role and Responsibilities of a Telecom E-Waste Handler	20:00	10:00	00:00	00:00	30:00
TEL/N2401: Promoting proper Telecom E-waste Handling and Disposal NOS Version No. 2.0 NSQF Level 3	80:00	100:00	120:00	00:00	300:00
Module 2: Handling E-Waste Properly	80:00	100:00	120:00	00:00	300:00
TEL/N9101 – Organise Work and Resources as per Health and Safety Standards NOS Version No. 1.0 NSQF Level 4	10:00	20:00	00:00	00:00	30:00
Module 3: Plan Work Effectively, Optimise Resources and Implement Safety Practices	10:00	20:00	00:00	00:00	30:00
TEL/N9102 – Interact Effectively with Team Members and Customers	10:00	20:00	00:00	00:00	30:00

NOS Version No. 1.0 NSQF Level 4					
Module 4: 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
Total Duration	150:00	150:00	120:00	00:00	420:00

Module Details

Module 1: Role and Responsibilities of a Telecom E-Waste Handler

Bridge Module

Terminal Outcomes:

- Identify the role and responsibilities of a Telecom E-Waste Handler.

Duration: 20:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the size and scope of the Telecom industry and its various sub-sectors. • Discuss the various opportunities for Telecom E-waste Handler in the Telecom industry. • List the role and responsibilities of a Telecom E-waste Handler • Analyse the organisational policies on incentives, delivery standards, personnel management and public relations (PR) pertinent to the job role. • Discuss the importance of seeking help from experts during any stage of main activity in order to avoid any escalation. 	<ul style="list-style-type: none"> • Maintaining records of e-waste handled or generated. • Promoting the importance of e-waste management and the risks associated with improper handling. • Maintaining log records and packaging collected e-waste for transportation to the central warehouse.
Classroom Aids:	
Laptop with software like MS Office and internet, White board, Marker, Projector	
Tools, Equipment and Other Requirements	

Module 2: Handling E-Waste Properly

Mapped to TEL/N2401 v1.0

Terminal Outcomes:

- Demonstrate how to promote proper telecom e-waste management and disposal.
- Employ suitable techniques for handling e-waste with precautions.

Duration: 80:00	Duration: 100:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the hazardous effects of improper disposal of telecom e-waste to retailers/refurbisher/recyclers of Telecom waste. • Discuss the best practices to be followed for proper disposal of telecom e-waste with the stakeholders. • Describe the process for proper management of e-waste collection from telecom sites. • Emphasize on the significance of timely arranging for transport to move the e-waste from collection centre to e-waste handling centre/warehouse. • Explain the procedure for initiating the process for safe transportation of the e-waste components, avoiding leaks/spillages. • Discuss the need for following warehouse etiquette while operating/working in the warehouse. • Elucidate the significance of adhering to organisational norms for personal hygiene, workplace hygiene and sanitation practices and also for cleaning and disinfecting material, tools and supplies before and after use/handling. • Describe how to report signs/symptoms of illness of self and/or colleagues to concerned authorities as soon as possible. 	<ul style="list-style-type: none"> • Employ various methods for conducting a survey within concerned people and stakeholders to check their understanding of telecom e-waste disposal. • Demonstrate how to document the result of surveys in proper format and as per prescribed recording norms. • Perform steps for identifying telecom e-waste sources and then planning and visiting the telecom site for collecting e-waste. • Implement different methods for basic separation/segregation of the components after collecting the telecom e-waste in proper containers/bags, using proper PPE. • Demonstrate how to issue e-waste collection receipt/certificate to stakeholders after collecting e-waste from them. • Employ appropriate methods to conduct product/type wise segregation of the components at the warehouse and then ensure that they are properly stacked, packaged/containerized. • Perform steps for weighing and labelling the e-waste as per standard operating procedure and ensure that proper records are maintained for key parameters such as the source, nature of e-waste collected, date, weight, etc. • Implement appropriate firefighting techniques in case of an emergency in the warehouse while managing or handling e-waste.

	<ul style="list-style-type: none">• Demonstrate how to dispose-off hazardous e-waste as per standard processes specified.
Classroom Aids:	
Laptop with software like MS Office and Internet, White board, Marker, Projector	
Tools, Equipment and Other Requirements	

Module 3: 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.

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the recent skills and technologies prevalent in the telecom industry. • Discuss the commonly occurring problems with their causes and solutions. • State the importance of keeping the workplace clean, safe and tidy. • List different types of hazards and the procedure to report it to the supervisor. • List the precautionary steps one needs to follow while handling hazardous materials. • State the importance of participating in fire drills and other safety workshops. • Discuss the significance of conforming to basic hygiene practices such as washing hands, using alcohol-based hand sanitizers. • List the different methods of cleaning, disinfection, sanitization, etc. • Discuss the importance of self-quarantine or self-isolation. • Explain the path of disease transmission. • Discuss organizational hygiene and sanitation guidelines and ways of reporting breaches/gaps, if any. • Explain the ways to optimize usage of resources. • Discuss various methods of waste management and disposal. • List the different categories of waste for the purpose of segregation. • Differentiate between recyclable and non-recyclable waste. • State the importance of using appropriate color dustbins for different types of waste. • Discuss the common sources of pollution and ways to minimize it. 	<ul style="list-style-type: none"> • Prepare a time schedule to complete the tasks on the given time. • Demonstrate the use of safety equipment such as goggles, gloves, ear plugs, shoes, etc. • Demonstrate the correct postures while working and handling hazardous materials at the workplace. • Demonstrate how to evacuate the workplace in case of an emergency. • Show how to sanitize and disinfect one's work area regularly. • Demonstrate the correct way of washing hands using soap and water. • Demonstrate the correct way of sanitizing hands using alcohol-based hand rubs. • Display the correct way of wearing and removing PPE such as face masks, hand gloves, face shields, PPE suits, etc. • Demonstrate warning labels, symbols and other related signages. • Perform basic checks to identify any spills and leaks and that need to be plugged /stopped. • Demonstrate different disposal techniques depending upon different types of waste. • Employ different ways to clean and check if equipment/machines are functioning as per requirements and report malfunctioning, if observed. • Demonstrate ways for efficient utilization of material and water.

Classroom Aids

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 4: 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

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of following the standard operating procedures of the company w.r.t priority, confidentiality and security. • Explain the standard procedure of communication and escalations of issues at the workplace. • Discuss the importance of timely rectification of issues. • State the importance of coordinating and resolving conflicts with the team members to achieve smooth workflow. • Discuss about the different types of disabilities with their respective issues. • List health and safety requirements for persons with disability. • Describe the rights, duties and benefits available at workplace for person with disability. • Explain the process of recruiting people with disability for a specific job. • Discuss the specific ways to help people with disability to overcome the challenges. 	<ul style="list-style-type: none"> • Use different modes of communication as per requirement and need. • Prepare a sample report of the commonly occurring errors and their solutions. • Demonstrate the use of gender and PwD (Person with Disability) inclusive language. • Prepare a list of institutes and government schemes that help PwD in overcoming challenges. • Demonstrate the ideal behaviour with a PwD in an organization.
Classroom Aids	
Whiteboard and Markers, Chart paper and sketch pens, LCD Projector and Laptop for presentations	
Tools, Equipment and Other Requirements	
Sample of escalation matrix, organisation structure	

Module 5: On-the-Job Training

Mapped to Telecom E-Waste Handler

Mandatory Duration: 120:00	Recommended Duration: 00:00
Location: On-Site	
Terminal Outcomes	
<ol style="list-style-type: none"> 1. Consult with the supervisor for a survey and seek guidance on the results and actions to be taken. 2. Communicate with stakeholders to check their understanding of telecom e-waste and its proper disposal. 3. Perform the necessary steps to identify e-waste sources in telecom. 4. Plan for visits to the telecom site for collecting e-waste and discuss the plan with the supervisor. 5. Perform basic separation/segregation of the e-waste components after collecting the e-waste. 6. Store e-waste in proper containers boxes/bags. 7. Wear and use proper PPE while collecting and segregating e-waste. 8. Issue an e-waste collection receipt/certificate to stakeholders after collecting e-waste from them. 9. Demonstrate how to conduct product/type-wise segregation of the components collected at the warehouse. 10. Ensure that the segregated waste is properly stacked, packaged/containerized. 11. Perform appropriate steps to weigh and label e-waste as per standard operating procedures. 12. Record all data in proper formats such as the source, nature of e-waste collected, date, weight, etc. 13. Ensure that proper firefighting techniques are known and practiced in case of an emergency in the warehouse while handling e-waste. 14. Demonstrate how to dispose-off hazardous e-waste. 	

Annexure

Trainer Requirements (Telecom E-Waste Handler)

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

Trainer Certification	
Domain Certification	Platform Certification
Job Role: "Telecom E-Waste Handler" NSQF level 3 "TEL/Q2400, v2.0", Minimum accepted score is 80%	Job Role: "Assessor" "MEP/Q2701" v1.0, Minimum accepted score is 80%

Assessor Requirements (Telecom E-Waste Handler)

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

Assessor Certification	
Domain Certification	Platform Certification
Job Role: "Telecom E-Waste Handler" NSQF level 3 "TEL/Q2400, v2.0", Minimum accepted score is 80%	Job Role: "Assessor" "MEP/Q2701"v1.0, Minimum accepted score is 80%

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

Mapped to Telecom E-Waste Handler

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

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: <ul style="list-style-type: none"> • have good communication skills • be well versed in English • have digital skills • have attention to detail • be adaptable • have willingness to learn
Current ITI trainers	Employability Skills Training (3 days full-time course done between 2019-2022)					
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 80% OR Certified in 120- OR 90- OR 60-hour Employability NOS (2022), with a minimum score of 80%	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 peer trainers	Prospective ES Master trainer should: <ul style="list-style-type: none"> • have good communication skills • be well versed in English • have basic digital skills
Certified Master Trainer	Qualification Pack: Master Trainer (MEP/Q2602			3	EEE training of Management SSC (MEPSC) (155 hours)	<ul style="list-style-type: none"> • have attention to detail • be adaptable • have willingness to learn • be able to grasp concepts fast and is creative with teaching practices and likes sharing back their learning with others

Master Trainer Certification	
Domain Certification	Platform Certification
Certified in 30-hour Employability NOS (2022), with a minimum score of 90% . OR Certified in 120- OR 90- OR 60-hour Employability NOS (2022), with a minimum score of 90%	

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 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.

References

Glossary

Term	Description
Declarative Knowledge	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.
Key Learning Outcome	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).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	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.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. 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
PR	Public Relations
PwD	Persons with Disabilities
EB	Electricity Board
PPE	Personal Protective Equipment
NOC	Network Operating Centre
SLA	Service Level Agreement
PM	Preventive Maintenance
CM	Corrective Maintenance
NMS	Network Monitoring System
ES	Employability Skills