

Qualification Pack



Handheld Devices (Mobile & Accessories) Technician

QP Code: TEL/Q2201

Version: 5.0

NSQF Level: 4

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TEL/Q2201: Handheld Devices (Mobile & Accessories) Technician

Brief Job Description

A Handheld Devices (Mobile & Accessories) Technician is responsible for diagnosing and repairing hardware and software issues in mobile phones, tablets, laptops and mobile accessories. The individual also performs basic chip-level repairs and ensures device functionality, maintains quality standards, and adheres to the applicable safety and environmental protocols.

Personal Attributes

The individual should have strong analytical and problem-solving skills, attention to detail, and the ability to work methodically. The person should also have basic written and oral communication skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TEL/N2213: Perform basic hardware and software repair of Android mobile phones and iPhones](#)
2. [TEL/N2214: Perform basic hardware and software repair of Android tablets and iPads](#)
3. [TEL/N2218: Perform basic hardware and software repair of Windows laptops, MacBook, and mobile accessories](#)
4. [TEL/N9108: Follow sustainability practices in telecom operations](#)
5. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Telecom
Sub-Sector	Handset
Occupation	Customer Service - Handset Segment
Country	India
NSQF Level	4
Credits	16
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7422.0203

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Minimum Educational Qualification & Experience	12th grade Pass OR Completed 2nd year of the 3-year diploma after 10 (in Electronics/ Computer Engineering/ Information Technology domain) OR 10th grade pass with 3 Years of experience in handheld device repair OR Previous relevant Qualification of NSQF Level (3.0) with 3 Years of experience in handheld device repair OR Previous relevant Qualification of NSQF Level (3.5) with 1.5 years of experience in handheld device repair
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	30/04/2028
NSQC Approval Date	08/05/2025
Version	5.0
Reference code on NQR	QG-04-TL-04072-2025-V2-TSSC
NQR Version	2

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TEL/N2213: Perform basic hardware and software repair of Android mobile phones and iPhones

Description

This unit focuses on diagnosing and repairing hardware and software issues in mobile phones, including basic chip-level repairs. It covers basic repairs of emerging technologies such as UMT, UFS programming, RFFE troubleshooting, and Android SoC diagnostics to ensure device functionality, quality standards, and adherence to safety protocols

Scope

The scope covers the following :

- Analyze, diagnose, and categorize faults
- Prepare for repairing mobile phones
- Repair and test mobile phones
- Perform basic chip-level repairs
- Perform post-repair activities

Elements and Performance Criteria

Analyze, diagnose, and categorize faults

To be competent, the user/individual on the job must be able to:

- PC1.** collect faulty handheld devices from customer care/front-end executives and document reported issues
- PC2.** use AI-enabled diagnostic tools to analyze hardware and software faults, including issues in Android and iOS System on Chip (SoC)
- PC3.** diagnose hardware and software issues in mobile phones, including charging circuits motherboards, processors, touchscreens, and IoT modules, using tools such as multimeters, SMD testers, JTAG, and UART
- PC4.** diagnose basic faults in technologies, such as Universal Flash Storage (UFS) programming and Radio Frequency Front-End (RFFE) modules, using schematic diagrams and specialized tools
- PC5.** conduct component-level diagnostics to determine root causes of faults in processors, integrated circuits, and chips
- PC6.** prioritize and plan repair activities based on Service Level Agreements (SLAs) and supervisor's directions
- PC7.** identify hardware and software issues using real-time diagnostic tools, including faults in foldable screens and modular designs
- PC8.** document the identified issues, including those related to Android and iOS mobile operating systems, cloud storage, and device protection systems
- PC9.** identify required parts and their availability, escalating shortages for procurement
- PC10.** estimate the repair cost, ensuring it is within the Beyond Economic Repair (BER) cost, and communicate this to the customer along with repair or replacement requirements

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- PC11.** record repair options under supervisor's guidance, considering repair feasibility, cost, and customer preferences

Prepare for repairing mobile phones

To be competent, the user/individual on the job must be able to:

- PC12.** collect necessary tools, including SMT rework stations, hot air guns, UMT dongles, infrared preheaters, and other energy-efficient tools
- PC13.** ensure the repair bench is clean, dust-free, and adheres to Electrostatic Discharge (ESD) protocols
- PC14.** calibrate diagnostic and repair equipment as per manufacturer's specifications
- PC15.** verify the availability and readiness of environmentally sustainable repair stations, including lead-free soldering tools
- PC16.** back up user data securely using authorized methods, ensuring compatibility with cloud storage platforms
- PC17.** ensure compliance with safety protocols while handling devices with foldable screens or modular designs

Repair and test mobile phones

To be competent, the user/individual on the job must be able to:

- PC18.** dismantle the mobile phone systematically to avoid collateral damage
- PC19.** replace or repair components as per manufacturer's specifications and 5G/IoT compatibility standards
- PC20.** conduct software updates or rectifications, including flashing and IMEI repairs, using updated tools like Miracle Box or UMT dongle
- PC21.** test the repaired device using appropriate diagnostic tools to ensure functionality and quality standards
- PC22.** test RFFE modules for signal integrity and troubleshoot connectivity issues
- PC23.** document repair details, including replaced components and quality checks performed

Perform basic chip-level repairs

To be competent, the user/individual on the job must be able to:

- PC24.** disassemble the mobile phone using manufacturer-approved tools and schematic diagrams for guidance
- PC25.** use hot air gun and infrared preheater or SMT rework station for preheating PCBs and component placement
- PC26.** use SMT-compatible repair techniques for diagnosing or repositioning components including chips, ensuring minimal heat damage
- PC27.** repair or replace faulty modules such as processors, Integrated Circuits (IC), electromagnetic coils, and IoT modules using precision tools and schematic diagrams
- PC28.** perform screen repairs using OCA lamination machines and bubble removers for foldable and curved displays
- PC29.** conduct appropriate testing of repaired components using oscilloscopes, JTAG, and UART to ensure functionality
- PC30.** ensure proper soldering and cleaning of PCBs, removing solder residues to maintain device integrity
- PC31.** adhere to safety and environmental standards, including proper e-waste disposal for faulty components

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Perform post-repair activities

To be competent, the user/individual on the job must be able to:

- PC32.** verify the repaired device's performance to ensure no residual faults
- PC33.** return repaired devices to authorized personnel and notify relevant teams about repair completion
- PC34.** dispose of e-waste in compliance with recycling and environmental regulations
- PC35.** clean and organize the repair bench, ensuring tools and equipment are returned in working condition
- PC36.** maintain records of repair activities, including timelines, complaint details, and replaced components

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** AI-enabled diagnostic tools and their applications in identifying hardware/software issues
- KU2.** troubleshooting methodologies for 5G-enabled and IoT-connected devices
- KU3.** micro-soldering techniques and the use of infrared rework stations
- KU4.** the safe handling and repair of foldable screens and modular designs
- KU5.** the functionalities of Android and iOS SoC and RFFE modules
- KU6.** mobile operating systems (Android and iOS) and cloud storage troubleshooting techniques
- KU7.** diagnosis of faults in technologies, such as UFS programming and RFFE modules
- KU8.** calibration and usage of diagnostic tools like oscilloscopes, UMT, JTAG, UART, and Miracle Box
- KU9.** the principles and usage of hot air guns, micro-soldering kits, and infrared rework stations
- KU10.** the properties and repair requirements of technologies, such as curved displays, foldable phones, and IoT modules
- KU11.** mobile operating systems and cloud storage troubleshooting techniques
- KU12.** dead device repairing procedure
- KU13.** the best practices for flashing and unlocking mobile phones
- KU14.** ESD protocols and energy-efficient repair operations
- KU15.** documentation methods for repair tracking
- KU16.** e-waste disposal practices and their environmental significance
- KU17.** warranty policies, repair procedures, and repair cost estimation
- KU18.** the operation of OCA lamination machines and bubble removers for screen repairs
- KU19.** Root Cause Analysis (RCA) and the Plan-Do-Check-Act (PDCA) cycle for problem-solving
- KU20.** the techniques for identifying and addressing faults in processors, motherboards, and integrated circuits
- KU21.** the significance of TAT and customer satisfaction in mobile repair services
- KU22.** the latest technologies in handheld device technologies and repair techniques
- KU23.** basic use of tools such as 3uTools, iTunes, or Finder for iOS diagnostics and resets

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KU24. manufacturer-recommended Level 1 repair definitions, including scope of SMT-based diagnostics and software flashing

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** communicate clearly with customers and team members to gather and convey information
- GS2.** manage time effectively to meet repair deadlines
- GS3.** maintain a systematic approach to diagnosing and repairing faults
- GS4.** operate diagnostic and repair tools with precision and attention to detail
- GS5.** adhere to safety and environmental standards during repair activities
- GS6.** write accurate and detailed repair reports and logs
- GS7.** follow updates on advancements in mobile phone technology
- GS8.** adapt to diverse devices, tools, and emerging technologies in the repair process
- GS9.** implement preventive measures to avoid repair disruptions
- GS10.** evaluate and select the best repair options for resolving issues efficiently

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Analyze, diagnose, and categorize faults</i>	10	16	-	6
PC1. collect faulty handheld devices from customer care/front-end executives and document reported issues	1	2	-	0.5
PC2. use AI-enabled diagnostic tools to analyze hardware and software faults, including issues in Android and iOS System on Chip (SoC)	1	2	-	0.5
PC3. diagnose hardware and software issues in mobile phones, including charging circuits motherboards, processors, touchscreens, and IoT modules, using tools such as multimeters, SMD testers, JTAG, and UART	1	2	-	1
PC4. diagnose basic faults in technologies, such as Universal Flash Storage (UFS) programming and Radio Frequency Front-End (RFFE) modules, using schematic diagrams and specialized tools	1	2	-	0.5
PC5. conduct component-level diagnostics to determine root causes of faults in processors, integrated circuits, and chips	0.5	2	-	0.5
PC6. prioritize and plan repair activities based on Service Level Agreements (SLAs) and supervisor's directions	0.5	1	-	0.5
PC7. identify hardware and software issues using real-time diagnostic tools, including faults in foldable screens and modular designs	1	1	-	0.5
PC8. document the identified issues, including those related to Android and iOS mobile operating systems, cloud storage, and device protection systems	1	1	-	0.5
PC9. identify required parts and their availability, escalating shortages for procurement	1	1	-	0.5
PC10. estimate the repair cost, ensuring it is within the Beyond Economic Repair (BER) cost, and communicate this to the customer along with repair or replacement requirements	1	1	-	0.5

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. record repair options under supervisor's guidance, considering repair feasibility, cost, and customer preferences	1	1	-	0.5
<i>Prepare for repairing mobile phones</i>	5	8	-	4
PC12. collect necessary tools, including SMT rework stations, hot air guns, UMT dongles, infrared preheaters, and other energy-efficient tools	1	2	-	1
PC13. ensure the repair bench is clean, dust-free, and adheres to Electrostatic Discharge (ESD) protocols	0.5	1	-	0.5
PC14. calibrate diagnostic and repair equipment as per manufacturer's specifications	0.5	1	-	0.5
PC15. verify the availability and readiness of environmentally sustainable repair stations, including lead-free soldering tools	1	2	-	1
PC16. back up user data securely using authorized methods, ensuring compatibility with cloud storage platforms	1	1	-	0.5
PC17. ensure compliance with safety protocols while handling devices with foldable screens or modular designs	1	1	-	0.5
<i>Repair and test mobile phones</i>	5	8	-	3
PC18. dismantle the mobile phone systematically to avoid collateral damage	1	2	-	0.5
PC19. replace or repair components as per manufacturer's specifications and 5G/IoT compatibility standards	0.5	1	-	0.5
PC20. conduct software updates or rectifications, including flashing and IMEI repairs, using updated tools like Miracle Box or UMT dongle	1	2	-	0.5
PC21. test the repaired device using appropriate diagnostic tools to ensure functionality and quality standards	1	1	-	0.5
PC22. test RFFE modules for signal integrity and troubleshoot connectivity issues	1	1	-	0.5

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC23. document repair details, including replaced components and quality checks performed	0.5	1	-	0.5
<i>Perform basic chip-level repairs</i>	5	10	-	4
PC24. disassemble the mobile phone using manufacturer-approved tools and schematic diagrams for guidance	1	2	-	0.5
PC25. use hot air gun and infrared preheater or SMT rework station for preheating PCBs and component placement	0.5	2	-	0.5
PC26. use SMT-compatible repair techniques for diagnosing or repositioning components including chips, ensuring minimal heat damage	1	1	-	0.5
PC27. repair or repair faulty modules such as processors, Integrated Circuits (IC), electromagnetic coils, and IoT modules using precision tools and schematic diagrams	0.5	1	-	0.5
PC28. perform screen repairs using OCA lamination machines and bubble removers for foldable and curved displays	0.5	1	-	0.5
PC29. conduct appropriate testing of repaired components using oscilloscopes, JTAG, and UART to ensure functionality	0.5	1	-	0.5
PC30. ensure proper soldering and cleaning of PCBs, removing solder residues to maintain device integrity	0.5	1	-	0.5
PC31. adhere to safety and environmental standards, including proper e-waste disposal for faulty components	0.5	1	-	0.5
<i>Perform post-repair activities</i>	5	8	-	3
PC32. verify the repaired device's performance to ensure no residual faults	1	2	-	1
PC33. return repaired devices to authorized personnel and notify relevant teams about repair completion	1	2	-	0.5

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC34. dispose of e-waste in compliance with recycling and environmental regulations	1	2	-	0.5
PC35. clean and organize the repair bench, ensuring tools and equipment are returned in working condition	1	1	-	0.5
PC36. maintain records of repair activities, including timelines, complaint details, and replaced components	1	1	-	0.5
NOS Total	30	50	-	20

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National Occupational Standards (NOS) Parameters

NOS Code	TEL/N2213
NOS Name	Perform basic hardware and software repair of Android mobile phones and iPhones
Sector	Telecom
Sub-Sector	Handset
Occupation	Customer Service - Handset Segment
NSQF Level	4
Credits	6
Version	4.0
Last Reviewed Date	08/05/2025
Next Review Date	30/04/2028
NSQC Clearance Date	08/05/2025

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TEL/N2214: Perform basic hardware and software repair of Android tablets and iPads

Description

This unit is about carrying out basic hardware and software repairs for tablets (Android tablets and iPads), including chip-level repairs, software updates, and diagnostics for technologies such as UFS programming, RFFE modules, and Android SoC systems

Scope

The scope covers the following :

- Perform pre-repair activities
- Repair and test tablets
- Perform basic chip-level repairs
- Perform post-repair activities

Elements and Performance Criteria

Perform pre-repair activities

To be competent, the user/individual on the job must be able to:

- PC1.** collect faulty tablets from customer care or front-end executives and record the faults reported by the customer
- PC2.** determine the repair specifics, including delivery deadlines and special requests
- PC3.** use AI-enabled diagnostic tools to identify hardware or software issues, including Android and iOS SoC and RFFE modules, along with appropriate solutions
- PC4.** check the availability of replacement components at the store or order from authorized service centers
- PC5.** retrieve replacement or repair parts from inventory and verify their compatibility
- PC6.** check the availability of tools such as SMT rework stations, infrared heaters, and diagnostic dongles (UMT, 3uTools)
- PC7.** prepare tools including SMT-compatible kits and infrared rework stations for minor chip-level diagnostics
- PC8.** inspect and prepare the repair area to ensure a clean, dust-free environment
- PC9.** verify calibration of diagnostic tools like oscilloscopes, JTAG, and UART interfaces
- PC10.** ensure the availability of lead-free soldering tools and energy-efficient repair stations
- PC11.** implement Electrostatic Discharge (ESD) precautions before commencing repairs

Repair and test tablets

To be competent, the user/individual on the job must be able to:

- PC12.** back up user data using secure and authorized mechanisms for both Android and iOS, ensuring compatibility with cloud storage or iTunes/Finder
- PC13.** dismantle devices following manufacturer specifications and organizational guidelines

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- PC14.** test and diagnose faults in processors, motherboards, integrated circuits, and foldable screens
- PC15.** replace non-soldered components (e.g., battery, screen, ports) or modular units for 5G-enabled and IoT-integrated tablets
- PC16.** perform SMT-based repair procedures, where applicable, avoiding full chip rework
- PC17.** assemble tablets as per specifications, ensuring modular components are fitted correctly
- PC18.** perform software repairs such as flashing, unlocking, and system updates using UMT tools for Android and iTunes/3uTools for iOS
- PC19.** utilize service manuals, schematics, block diagrams, and troubleshooting guides effectively
- PC20.** conduct infrared-based repairs for chipsets and ensure thermal management during reassembly
- PC21.** test repaired devices using specialized diagnostic tools to validate functionality, including RFFE module diagnostics
- PC22.** escalate unresolved issues to supervisors for timely resolution

Perform chip-level repairs

To be competent, the user/individual on the job must be able to:

- PC23.** determine chip-level issues with the tablet by examining various sections, such as charging ports, motherboards, touchpads, and screens, using tools like multimeters and SMD testers
- PC24.** open the outer casing and identify connectors to remove the motherboard
- PC25.** preheat PCBs using hot air guns and remove defective components with precision
- PC26.** follow manufacturer-approved block diagrams and schematics while disassembling
- PC27.** preheat PCBs using infrared heaters or hot air guns before diagnostics or repositioning components
- PC28.** replace faulty modules (e.g. display ICs, simple capacitors) in line with Android or iOS design guidelines
- PC29.** use SMT-compatible techniques to reposition or reflow parts
- PC30.** use tools like OCA lamination machines and bubble removers for screen repairs
- PC31.** test the replaced modules to ensure optimal functionality and resolve any residual faults
- PC32.** document chip-level repairs and escalate complex issues to senior technicians or engineers

Perform post-repair activities

To be competent, the user/individual on the job must be able to:

- PC33.** test and verify the effectiveness of repairs using appropriate tools
- PC34.** ensure the device is damage-free after repair and meets applicable quality standards
- PC35.** return repaired devices to authorized personnel
- PC36.** return tools and equipment to the store, ensuring cleanliness and functionality
- PC37.** clean the repair station, ensuring no loose parts or screws are left behind
- PC38.** dispose of defective components following proper e-waste recycling methods

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the features, brands, and operating systems used in tablets, including Android and iOS

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- KU2.** AI-enabled diagnostic tools and their applications in identifying hardware/software issues
- KU3.** modular design and handling techniques for foldable or IoT-connected tablets
- KU4.** the functionalities and features of modern handheld devices, including foldable and modular designs
- KU5.** Android and iOS SoC architecture and how to identify related faults
- KU6.** the diagnostic techniques using tools like multimeters, SMD testers, and oscilloscopes
- KU7.** the tools and techniques for UFS programming and RFFE troubleshooting of tablets
- KU8.** SMT-based rework techniques for chip-level inspection and repositioning
- KU9.** the types, identification, and functionality of resistors, capacitors, and diodes used in tablets
- KU10.** the methods for testing and replacing faulty components like transistors and MOSFETs
- KU11.** the techniques for preheating PCBs and ensuring proper module placement
- KU12.** use of tools like OCA lamination machines and bubble removers for screen repairs
- KU13.** the interpretation of block diagrams, exploded view charts, and repair manuals
- KU14.** the ESD protocols and precautions during repairs
- KU15.** lead-free soldering practices and energy-efficient repair operations
- KU16.** e-waste disposal regulations and methods
- KU17.** thermal management techniques during chip-level repairs
- KU18.** standards repair policies, warranty conditions, and Turnaround Time (TAT)
- KU19.** the documentation requirements for repair tracking and ERP systems
- KU20.** tools specific to iOS repair workflows iTunes, 3uTools and their applications for backup, diagnostics and flashing

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** communicate professionally with customers and team members to clarify repair requirements
- GS2.** read and interpret technical manuals, reports, and schematics accurately
- GS3.** work systematically with attention to detail during diagnosis and repair
- GS4.** manage time efficiently to meet repair deadlines
- GS5.** operate diagnostic tools with precision
- GS6.** apply problem-solving skills to troubleshoot complex faults
- GS7.** document repair processes and maintain accurate records
- GS8.** adhere to environmental and safety standards, including energy efficiency and e-waste disposal
- GS9.** adapt to advancements in handheld technologies like 5g and modular designs
- GS10.** maintain cleanliness and organization in the workspace to ensure high-quality repairs

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform pre-repair activities</i>	10	15	-	6
PC1. collect faulty tablets from customer care or front-end executives and record the faults reported by the customer	1	2	-	1
PC2. determine the repair specifics, including delivery deadlines and special requests	1	2	-	0.5
PC3. use AI-enabled diagnostic tools to identify hardware or software issues, including Android and iOS SoC and RFFE modules, along with appropriate solutions	1	2	-	0.5
PC4. check the availability of replacement components at the store or order from authorized service centers	1	2	-	0.5
PC5. retrieve replacement or repair parts from inventory and verify their compatibility	1	1	-	0.5
PC6. check the availability of tools such as SMT rework stations, infrared heaters, and diagnostic dongles (UMT, 3uTools)	1	1	-	0.5
PC7. prepare tools including SMT-compatible kits and infrared rework stations for minor chip-level diagnostics	0.5	1	-	0.5
PC8. inspect and prepare the repair area to ensure a clean, dust-free environment	0.5	1	-	0.5
PC9. verify calibration of diagnostic tools like oscilloscopes, JTAG, and UART interfaces	1	1	-	0.5
PC10. ensure the availability of lead-free soldering tools and energy-efficient repair stations	1	1	-	0.5
PC11. implement Electrostatic Discharge (ESD) precautions before commencing repairs	1	1	-	0.5
<i>Repair and test tablets</i>	10	15	-	6

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. back up user data using secure and authorized mechanisms for both Android and iOS, ensuring compatibility with cloud storage or iTunes/Finder	1	2	-	1
PC13. dismantle devices following manufacturer specifications and organizational guidelines	1	2	-	0.5
PC14. test and diagnose faults in processors, motherboards, integrated circuits, and foldable screens	1	2	-	0.5
PC15. replace non-soldered components (e.g., battery, screen, ports) or modular units for 5G-enabled and IoT-integrated tablets	1	2	-	0.5
PC16. perform SMT-based repair procedures, where applicable, avoiding full chip rework	1	1	-	0.5
PC17. assemble tablets as per specifications, ensuring modular components are fitted correctly	1	1	-	0.5
PC18. perform software repairs such as flashing, unlocking, and system updates using UMT tools for Android and iTunes/3uTools for iOS	1	1	-	0.5
PC19. utilize service manuals, schematics, block diagrams, and troubleshooting guides effectively	1	1	-	0.5
PC20. conduct infrared-based repairs for chipsets and ensure thermal management during reassembly	1	1	-	0.5
PC21. test repaired devices using specialized diagnostic tools to validate functionality, including RFFE module diagnostics	0.5	1	-	0.5
PC22. escalate unresolved issues to supervisors for timely resolution	0.5	1	-	0.5
<i>Perform chip-level repairs</i>	7	14	-	5
PC23. determine chip-level issues with the tablet by examining various sections, such as charging ports, motherboards, touchpads, and screens, using tools like multimeters and SMD testers	1	2	-	0.5

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC24. open the outer casing and identify connectors to remove the motherboard	1	2	-	0.5
PC25. preheat PCBs using hot air guns and remove defective components with precision	1	2	-	0.5
PC26. follow manufacturer-approved block diagrams and schematics while disassembling	1	2	-	0.5
PC27. preheat PCBs using infrared heaters or hot air guns before diagnostics or repositioning components	0.5	1	-	0.5
PC28. replace faulty modules (e.g. display ICs, simple capacitors) in line with Android or iOS design guidelines	0.5	1	-	0.5
PC29. use SMT-compatible techniques to reposition or reflow parts	0.5	1	-	0.5
PC30. use tools like OCA lamination machines and bubble removers for screen repairs	0.5	1	-	0.5
PC31. test the replaced modules to ensure optimal functionality and resolve any residual faults	0.5	1	-	0.5
PC32. document chip-level repairs and escalate complex issues to senior technicians or engineers	0.5	1	-	0.5
<i>Perform post-repair activities</i>	3	6	-	3
PC33. test and verify the effectiveness of repairs using appropriate tools	0.5	1	-	0.5
PC34. ensure the device is damage-free after repair and meets applicable quality standards	0.5	1	-	0.5
PC35. return repaired devices to authorized personnel	0.5	1	-	0.5
PC36. return tools and equipment to the store, ensuring cleanliness and functionality	0.5	1	-	0.5
PC37. clean the repair station, ensuring no loose parts or screws are left behind	0.5	1	-	0.5
PC38. dispose of defective components following proper e-waste recycling methods	0.5	1	-	0.5

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	30	50	-	20

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National Occupational Standards (NOS) Parameters

NOS Code	TEL/N2214
NOS Name	Perform basic hardware and software repair of Android tablets and iPads
Sector	Telecom
Sub-Sector	Handset
Occupation	Customer Service - Handset Segment
NSQF Level	4
Credits	4
Version	3.0
Last Reviewed Date	08/05/2025
Next Review Date	30/04/2028
NSQC Clearance Date	08/05/2025

Qualification Pack

TEL/N2218: Perform basic hardware and software repair of Windows laptops, MacBook, and mobile accessories

Description

This unit focuses on conducting diagnosis and carrying out basic repairs on basic laptops (Windows and MacBook) and mobile accessories. It includes troubleshooting hardware and software faults, replacing faulty components, and ensuring compliance with safety and quality standards

Scope

The scope covers the following :

- Diagnose faults
- Perform laptop repairs
- Repair mobile accessories
- Perform post-repair activities

Elements and Performance Criteria

Diagnose faults

To be competent, the user/individual on the job must be able to:

- PC1.** collect faulty laptops and mobile accessories from customers and document reported issues
- PC2.** use diagnostic tools to identify hardware and software faults in Windows and macOS laptops, and mobile accessories
- PC3.** test power supply, battery health, connectivity ports, and display for performance issues
- PC4.** identify common faults in accessories such as broken connectors, short circuits, and charging failures
- PC5.** identify and document root causes using service manuals, schematic diagrams, and tools such as Apple Diagnostics, Windows Memory Diagnostic, or relevant third-party apps
- PC6.** estimate repair costs and provide repair or replacement recommendations to customers

Perform laptop repairs

To be competent, the user/individual on the job must be able to:

- PC7.** dismantle the laptop systematically, following manufacturer guidelines to ensure no collateral damage
- PC8.** replace/repair basic hardware components such as RAM, SSD/HDD, keyboard, screen, battery, cooling fans, or I/O ports
- PC9.** perform software installations and updates using tools such as macOS Recovery/Internet Recovery, Windows PE, or OEM recovery tools
- PC10.** apply thermal paste and replace thermal pads or fans for optimal cooling system maintenance
- PC11.** test wireless and connectivity modules (Wi-Fi, Bluetooth) for proper functioning
- PC12.** reassemble laptops as per manufacturer guidelines and perform appropriate functionality checks

Repair mobile accessories

Qualification Pack

To be competent, the user/individual on the job must be able to:

- PC13.** open and inspect accessories like chargers, earphones, and power banks using ESD-safe tools
- PC14.** repair or replace damaged connectors, broken wiring, and faulty charging circuits
- PC15.** test and replace basic components such as batteries, fuses, resistors, or ICs using SMT-compatible techniques
- PC16.** use infrared preheaters or hot air rework stations for minor board repairs
- PC17.** test repaired accessories to ensure electrical safety and functional compliance

Perform post-repair activities

To be competent, the user/individual on the job must be able to:

- PC18.** clean and organize the workbench, ensuring tools are stored properly
- PC19.** perform quality checks on repaired laptops and mobile accessories using built-in and external diagnostic tools to ensure complete functionality
- PC20.** segregate and dispose of e-waste and non-repairable parts as per environmental regulations
- PC21.** document all repairs, including parts replaced, service duration, and customer feedback

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** common faults in Windows laptops, MacBooks, and mobile accessories and their diagnostic techniques
- KU2.** functions and specifications of key laptop components (motherboard, RAM, SSD/HDD, power supply, cooling system)
- KU3.** circuit design and repair techniques for mobile accessories like chargers, earphones, and power banks
- KU4.** use of relevant diagnostic tools, such as Apple Diagnostics, CoconutBattery (macOS), Windows Memory Diagnostic, CrystalDiskInfo, etc
- KU5.** Electrostatic Discharge (ESD) safety and handling of sensitive electronic components
- KU6.** battery testing and replacement protocols for laptops and mobile accessories
- KU7.** the relevant software repair tools and methods, i.e. macOS Recovery, Internet Recovery, Disk Utility, and Windows OS installation, BIOS updates, Safe Mode tools
- KU8.** techniques for reprogramming firmware and updating device drivers
- KU9.** principles of thermal management and cooling system maintenance
- KU10.** quality assurance and post-repair testing standards for repaired devices
- KU11.** environmental safety and e-waste disposal regulation
- KU12.** the applicable documentation procedures, including checklists, repair logs, inventory updates

Generic Skills (GS)

User/individual on the job needs to know how to:

Qualification Pack

- GS1.** communicate effectively with customers to understand repair issues and provide service updates
- GS2.** manage time efficiently to ensure timely completion of repair tasks
- GS3.** operate diagnostic and repair tools with precision and accuracy
- GS4.** maintain a systematic approach to fault diagnosis and repair
- GS5.** read and interpret technical schematics and service manuals
- GS6.** adapt to emerging laptop and mobile accessory technologies
- GS7.** maintain safety and hygiene standards in the repair environment
- GS8.** document repair activities accurately for future reference and audits
- GS9.** apply problem-solving skills to diagnose and repair complex faults
- GS10.** work collaboratively in a team to enhance repair efficiency and service quality

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Diagnose faults</i>	9	15	-	5
PC1. collect faulty laptops and mobile accessories from customers and document reported issues	2	3	-	1
PC2. use diagnostic tools to identify hardware and software faults in Windows and macOS laptops, and mobile accessories	2	3	-	1
PC3. test power supply, battery health, connectivity ports, and display for performance issues	2	3	-	1
PC4. identify common faults in accessories such as broken connectors, short circuits, and charging failures	1	2	-	1
PC5. identify and document root causes using service manuals, schematic diagrams, and tools such as Apple Diagnostics, Windows Memory Diagnostic, or relevant third-party apps	1	2	-	0.5
PC6. estimate repair costs and provide repair or replacement recommendations to customers	1	2	-	0.5
<i>Perform laptop repairs</i>	8	15	-	6
PC7. dismantle the laptop systematically, following manufacturer guidelines to ensure no collateral damage	2	3	-	1
PC8. replace/repair basic hardware components such as RAM, SSD/HDD, keyboard, screen, battery, cooling fans, or I/O ports	2	3	-	1
PC9. perform software installations and updates using tools such as macOS Recovery/Internet Recovery, Windows PE, or OEM recovery tools	1	2	-	1
PC10. apply thermal paste and replace thermal pads or fans for optimal cooling system maintenance	1	3	-	1
PC11. test wireless and connectivity modules (Wi-Fi, Bluetooth) for proper functioning	1	2	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. reassemble laptops as per manufacturer guidelines and perform appropriate functionality checks	1	2	-	1
<i>Repair mobile accessories</i>	7	10	-	5
PC13. open and inspect accessories like chargers, earphones, and power banks using ESD-safe tools	2	2	-	1
PC14. repair or replace damaged connectors, broken wiring, and faulty charging circuits	2	2	-	1
PC15. test and replace basic components such as batteries, fuses, resistors, or ICs using SMT-compatible techniques	1	2	-	1
PC16. use infrared preheaters or hot air rework stations for minor board repairs	1	2	-	1
PC17. test repaired accessories to ensure electrical safety and functional compliance	1	2	-	1
<i>Perform post-repair activities</i>	6	10	-	4
PC18. clean and organize the workbench, ensuring tools are stored properly	2	3	-	1
PC19. perform quality checks on repaired laptops and mobile accessories using built-in and external diagnostic tools to ensure complete functionality	2	3	-	1
PC20. segregate and dispose of e-waste and non-repairable parts as per environmental regulations	1	2	-	1
PC21. document all repairs, including parts replaced, service duration, and customer feedback	1	2	-	1
NOS Total	30	50	-	20

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N2218
NOS Name	Perform basic hardware and software repair of Windows laptops, MacBook, and mobile accessories
Sector	Telecom
Sub-Sector	
Occupation	Customer Service - Handset Segment
NSQF Level	4
Credits	3
Version	1.0
Last Reviewed Date	08/05/2025
Next Review Date	30/04/2028
NSQC Clearance Date	08/05/2025

Qualification Pack

TEL/N9108: Follow sustainability practices in telecom operations

Description

This unit focuses on sustainability practices in the telecom sector, detailing processes to identify components for recycling, refurbishment, or responsible disposal while ensuring compliance with environmental standards and promoting sustainable repair and maintenance practices.

Scope

The scope covers the following :

- Identify recyclable, reusable, and disposable components
- Adhere to environmental standards
- Follow sustainable repair practices
- Comply with sustainability protocols

Elements and Performance Criteria

Identify recyclable, reusable, and disposable components

To be competent, the user/individual on the job must be able to:

- PC1.** identify telecom components that can be recycled, refurbished, or reused during repair and maintenance
- PC2.** sort materials into recyclable, reusable, and hazardous waste categories
- PC3.** examine faulty components for potential refurbishment and document findings
- PC4.** label and segregate hazardous materials for specialized disposal
- PC5.** evaluate dismantled parts to determine their suitability for recycling or safe disposal

Adhere to environmental standards

To be competent, the user/individual on the job must be able to:

- PC6.** follow guidelines for safe handling, storage, and disposal of hazardous and non-hazardous materials
- PC7.** maintain compliance with environmental regulations relevant to e-waste management
- PC8.** record all e-waste disposal and recycling activities as per company policies
- PC9.** use protective equipment when handling hazardous waste to prevent environmental contamination
- PC10.** conduct regular audits of waste management processes to ensure alignment with sustainability standards

Follow sustainable repair practices

To be competent, the user/individual on the job must be able to:

- PC11.** use repair techniques that minimize waste generation and energy consumption
- PC12.** select energy-efficient and eco-friendly spare parts for repairs
- PC13.** optimize material usage by reusing functional components from discarded devices
- PC14.** minimize the use of single-use materials during maintenance and repair tasks
- PC15.** diagnose faults accurately to avoid unnecessary replacements

Qualification Pack

Comply with sustainability protocols

To be competent, the user/individual on the job must be able to:

- PC16.** follow organizational sustainability policies during repair and maintenance activities
- PC17.** coordinate with certified recyclers for responsible disposal of non-recyclable waste
- PC18.** ensure proper documentation of waste transfer to recycling or disposal agencies
- PC19.** participate in training programs on environmental conservation and sustainability
- PC20.** promote awareness of sustainable practices among team members and stakeholders

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the relevant environmental laws and regulations for the telecom sector
- KU2.** different recyclable and hazardous components in telecom equipment
- KU3.** the relevant tools and techniques that support sustainable repair practices
- KU4.** the safe handling, storage, and disposal of hazardous materials
- KU5.** e-waste recycling through certified vendors
- KU6.** the documentation related to sustainability and waste disposal
- KU7.** waste segregation and sorting guidelines
- KU8.** the industry's best practices for reducing environmental impact
- KU9.** the importance of energy efficiency and using eco-friendly parts

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** improve and modify work practices
- GS2.** communicate effectively with team members and stakeholders
- GS3.** record and report waste management and recycling activities accurately
- GS4.** solve problems related to waste segregation and disposal
- GS5.** plan and organize tasks to ensure compliance with sustainability protocols
- GS6.** make informed decisions about recyclable and reusable components
- GS7.** coordinate with external agencies for responsible waste management
- GS8.** ensure accuracy in maintaining compliance records
- GS9.** adapt to new sustainability policies and practices
- GS10.** identify and mitigate risks associated with hazardous materials
- GS11.** promote teamwork to achieve sustainability goals

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify recyclable, reusable, and disposable components</i>	8	15	-	5
PC1. identify telecom components that can be recycled, refurbished, or reused during repair and maintenance	2	3	-	1
PC2. sort materials into recyclable, reusable, and hazardous waste categories	2	3	-	1
PC3. examine faulty components for potential refurbishment and document findings	2	3	-	1
PC4. label and segregate hazardous materials for specialized disposal	1	3	-	1
PC5. evaluate dismantled parts to determine their suitability for recycling or safe disposal	1	3	-	1
<i>Adhere to environmental standards</i>	6	15	-	5
PC6. follow guidelines for safe handling, storage, and disposal of hazardous and non-hazardous materials	2	3	-	1
PC7. maintain compliance with environmental regulations relevant to e-waste management	1	3	-	1
PC8. record all e-waste disposal and recycling activities as per company policies	1	3	-	1
PC9. use protective equipment when handling hazardous waste to prevent environmental contamination	1	3	-	1
PC10. conduct regular audits of waste management processes to ensure alignment with sustainability standards	1	3	-	1
<i>Follow sustainable repair practices</i>	8	10	-	5
PC11. use repair techniques that minimize waste generation and energy consumption	2	2	-	1
PC12. select energy-efficient and eco-friendly spare parts for repairs	2	2	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. optimize material usage by reusing functional components from discarded devices	2	2	-	1
PC14. minimize the use of single-use materials during maintenance and repair tasks	1	2	-	1
PC15. diagnose faults accurately to avoid unnecessary replacements	1	2	-	1
<i>Comply with sustainability protocols</i>	8	10	-	5
PC16. follow organizational sustainability policies during repair and maintenance activities	2	2	-	1
PC17. coordinate with certified recyclers for responsible disposal of non-recyclable waste	2	2	-	1
PC18. ensure proper documentation of waste transfer to recycling or disposal agencies	2	2	-	1
PC19. participate in training programs on environmental conservation and sustainability	1	2	-	1
PC20. promote awareness of sustainable practices among team members and stakeholders	1	2	-	1
NOS Total	30	50	-	20

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N9108
NOS Name	Follow sustainability practices in telecom operations
Sector	Telecom
Sub-Sector	
Occupation	Generic
NSQF Level	4
Credits	1
Version	1.0
Last Reviewed Date	08/05/2025
Next Review Date	30/04/2028
NSQC Clearance Date	08/05/2025

Qualification Pack

DGT/VSQ/N0102: Employability Skills (60 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

- PC1.** identify employability skills required for jobs in various industries
- PC2.** identify and explore learning and employability portals

Constitutional values – Citizenship

To be competent, the user/individual on the job must be able to:

- PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

- PC5.** recognize the significance of 21st Century Skills for employment
- PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

To be competent, the user/individual on the job must be able to:

Qualification Pack

- PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

To be competent, the user/individual on the job must be able to:

- PC10.** understand the difference between job and career
- PC11.** prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

To be competent, the user/individual on the job must be able to:

- PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13.** work collaboratively with others in a team

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

- PC14.** communicate and behave appropriately with all genders and PwD
- PC15.** escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

- PC16.** select financial institutions, products and services as per requirement
- PC17.** carry out offline and online financial transactions, safely and securely
- PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

To be competent, the user/individual on the job must be able to:

- PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21.** use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22.** use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

To be competent, the user/individual on the job must be able to:

- PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

To be competent, the user/individual on the job must be able to:

- PC26.** identify different types of customers
- PC27.** identify and respond to customer requests and needs in a professional manner.

Qualification Pack

PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

PC29. create a professional Curriculum vitae (Résumé)

PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC31. apply to identified job openings using offline /online methods as per requirement

PC32. answer questions politely, with clarity and confidence, during recruitment and selection

PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.

KU16. how to identify business opportunities

KU17. types and needs of customers

KU18. how to apply for a job and prepare for an interview

KU19. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read and write different types of documents/instructions/correspondence

GS2. communicate effectively using appropriate language in formal and informal settings

Qualification Pack

- GS3.** behave politely and appropriately with all
- GS4.** how to work in a virtual mode
- GS5.** perform calculations efficiently
- GS6.** solve problems effectively
- GS7.** pay attention to details
- GS8.** manage time efficiently
- GS9.** maintain hygiene and sanitization to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	08/05/2025
Next Review Date	31/10/2025
NSQC Clearance Date	08/05/2025

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Qualification Pack

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TEL/N2213.Perform basic hardware and software repair of Android mobile phones and iPhones	30	50	-	20	100	30
TEL/N2214.Perform basic hardware and software repair of Android tablets and iPads	30	50	-	20	100	25
TEL/N2218.Perform basic hardware and software repair of Windows laptops, MacBook, and mobile accessories	30	50	-	20	100	25
TEL/N9108.Follow sustainability practices in telecom operations	30	50	-	20	100	10
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	140	230	-	80	450	100

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
NCVET	National Council for Vocational Education and Training
QP	Qualification Pack
MC	Model Curriculum
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
NCO	National Classification of Occupations
ES	Employability Skills
TSSC	Telecom Sector Skill Council
TRAI	Telecom Regulatory Authority of India
AI	Artificial Intelligence
SoC	System on Chip
RFFE	Radio Frequency Front-End
SMD	Surface-Mount Device
JTAG	Joint Test Action Group
UART	Universal Asynchronous Receiver-Transmitter
UFS	Universal Flash Storage
UMT	Ultimate Multi Tool
SLAs	Service Level Agreements
ESD	Electrostatic Discharge
BER	Beyond Economic Repair

Qualification Pack

TAT	Turnaround Time
OCA	Optically Clear Adhesive
RCA	Root Cause Analysis
PDCA	Plan-Do-Check-Act
MOSFETs	Metal-Oxide-Semiconductor Field-Effect Transistors
RAM	Random Access Memory
SSD	Solid State Drive
HDD	Hard Disk Drive
IC	Integrated Circuit
IoT	Internet of Things

Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.

Qualification Pack

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.