

Qualification Pack



Technician 5G - Active Network Installation

QP Code: TEL/Q6213

Version: 2.0

NSQF Level: 4

Telecom Sector Skill Council || 3rd Floor, Plot No 126, Sector - 44
Gurgaon - 122003



Qualification Pack

Contents

TEL/Q6213: Technician 5G - Active Network Installation	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
TEL/N6104: Carry out Rack Level Installation	5
TEL/N6105: Carry out 5G active network installation	11
TEL/N6246: Follow the Occupational Health and Safety Instructions during Tower Climbing	16
TEL/N9101: Organise Work and Resources as per Health and Safety Standards	23
TEL/N9102: Interact Effectively with Team Members and Customers	30
DGT/VSQ/N0102: Employability Skills (60 Hours)	35
Assessment Guidelines and Weightage	42
<i>Assessment Guidelines</i>	42
<i>Assessment Weightage</i>	43
Acronyms	44
Glossary	45

Qualification Pack

TEL/Q6213: Technician 5G - Active Network Installation

Brief Job Description

A 5G Technician - Active Network Installation is responsible for carrying out rack-level installation to install 5G network equipment and then carrying out the 5G active network installation. The individual also identifies and rectifies faults or malfunctions during the installation process.

Personal Attributes

The individual must have attention to detail, along with analytical and problem-solving skills. The person must have the ability to work in coordination with others. The individual should have good verbal and written communication skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TEL/N6104: Carry out Rack Level Installation](#)
2. [TEL/N6105: Carry out 5G active network installation](#)
3. [TEL/N6246: Follow the Occupational Health and Safety Instructions during Tower Climbing](#)
4. [TEL/N9101: Organise Work and Resources as per Health and Safety Standards](#)
5. [TEL/N9102: Interact Effectively with Team Members and Customers](#)
6. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Telecom
Sub-Sector	Network Managed Services
Occupation	Network (Active Components Installation)
Country	India
NSQF Level	4
Credits	19

Qualification Pack

Aligned to NCO/ISCO/ISIC Code	NCO-2015/NIL
Minimum Educational Qualification & Experience	11th grade pass OR Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma OR 10th grade pass and pursuing continuous schooling OR 10th grade pass with 2 Years of experience OR Previous relevant Qualification of NSQF Level (3 Last Mile - Active Network Comp Installer with minimum education as 5th Grade pass with) with 2 Years of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	17 Years
Last Reviewed On	NA
Next Review Date	31/03/2025
NSQC Approval Date	31/03/2022
Version	2.0
Reference code on NQR	QG-04-TL-00083-2023-V1.1-TSSC
NQR Version	1.1

Qualification Pack

TEL/N6104: Carry out Rack Level Installation

Description

This OS unit is about carrying out rack level installation for 5G network equipment.

Scope

The scope covers the following :

- Prepare for the installation of rack and equipment for 5G networks
- Carry out the installation of rack and equipment for 5G networks

Elements and Performance Criteria

Prepare for the installation of rack and equipment for 5G networks

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

- PC1.** check the availability of space in the room selected for rack and equipment installation to ensure it can support the installation of racks currently and additional racks in the future
- PC2.** check the facility's doors have the appropriate height, and the floor is adequately strong to support the movement and installation of racks and equipment
- PC3.** check the availability of the appropriate type of racks for the installation of 5G network equipment, ensuring the racks allow easy cable and device management
- PC4.** ensure the room's circuits can provide the correct voltages and sufficient amperage for all the 5G network equipment
- PC5.** check that there are no sources of heat in and around the room selected for the installation of racks and equipment
- PC6.** ensure there is adequate active or passive ventilation, such as ducts, dropped ceilings, or Computer Room Air Conditioners (CRACs) for the dissipation of heat generated by the equipment
- PC7.** prepare a plan for the placement of the racks in relation to the room and important resources, such as power circuits and cooling equipment

Carry out the installation of rack and equipment for 5G networks

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

- PC8.** arrange racks in a hot-aisle/cold-aisle layout to reduce energy use
- PC9.** plan the installation of equipment on racks to maximize space utilisation inside the racks, and permit easy service and future equipment installations
- PC10.** check gNodeB received from the vendor to ensure it is not damaged or faulty
- PC11.** coordinate with the relevant personnel or manufacturer for the repair or replacement of damaged/faulty gNodeB
- PC12.** set up gNodeB and other 5G network equipment on racks safely and secure them using nuts and screws, adhering to the load rating of racks
- PC13.** ensure to place the heavy equipment at the bottom of racks to prevent them from becoming top-heavy and prone to tipping over

Qualification Pack

- PC14.** carry out the installation of blade servers and other high-density and high-wattage loads in multiple racks to prevent problematic hot spots
- PC15.** follow the manufacturer instructions provided in the installation manual for safe and successful installation of equipment
- PC16.** identify faults/malfunctions in the equipment and carry out troubleshooting as per the manufacturer instructions
- PC17.** coordinate with the manufacturer to resolve any manufacturing faults
- PC18.** use pre-configured equipment provided by the manufacturer or follow the manufacturer's instructions to configure the operating system with the Virtual Machine (VM) ware

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** different type of racks used for the installation of different types of IT equipment, such as open frame racks, rack enclosures, wall-mount racks
- KU2.** the standard dimensions of racks, i.e. height, width, depth, and load rating
- KU3.** the standard dimensions of different types of IT equipment, such as servers, storage equipment, network switches, routers, telecommunications hardware, etc.
- KU4.** different components of racks, such as doors, roof panels, side panels, locks, hinged wall brackets, casters, levelers, etc.
- KU5.** the criteria for selecting a room/space for the installation of racks to house 5G network equipment
- KU6.** different types of racks used for the installation of 5G network equipment, such as open frame racks, rack enclosures, wall-mount racks, etc.
- KU7.** the criteria for selecting appropriate types of racks for the safe placement of various 5G network equipment
- KU8.** the importance and process of ensuring the availability of correct voltages and sufficient amperage for all the 5G network equipment
- KU9.** the importance of ensuring that there are no sources of heat in and around the room selected for the installation of racks and equipment
- KU10.** the importance of ensuring adequate active or passive ventilation for the dissipation of heat generated by the equipment
- KU11.** the process of planning the placement of racks in relation to the room and important resources, such as power circuits and cooling equipment
- KU12.** the process of arranging racks in a hot-aisle/cold-aisle layout to reduce energy use
- KU13.** the process of planning the installation of equipment on racks
- KU14.** the process of checking gNodeB damages and faults
- KU15.** the process of setting up gNodeB and other 5G network equipment on racks, adhering to the load rating of racks
- KU16.** the importance of ensuring to place the heavy equipment at the bottom of racks to prevent them from becoming top-heavy and prone to tipping over
- KU17.** the importance of installing blade servers and other high-density and high-wattage loads in multiple racks to prevent problematic hot spots

Qualification Pack

- KU18.** the common faults/malfunctions experienced with the 5G network equipment and carrying out troubleshooting as per the manufacturer's instructions
- KU19.** the process of configuring the operating system with the VM ware
- KU20.** networking fundamentals, such as Transmission Control Protocol (TCP)/ Internet Protocol (IP), Domain Name System (DNS), Secure Shell (SSH), Secure Sockets Layer (SSL), Hypertext Transfer Protocol (HTTP)

Generic Skills (GS)

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

- GS1.** maintain work-related notes and records
- GS2.** read the relevant literature to get the latest updates about the field of work
- GS3.** listen attentively to understand the information/ instructions being shared
- GS4.** communicate politely and professionally
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** coordinate with the co-workers to achieve the work objectives
- GS7.** evaluate all possible solutions to a problem to select the best one
- GS8.** take quick decisions to deal with workplace emergencies/ accidents

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for the installation of rack and equipment for 5G networks</i>	11	20	-	7
PC1. check the availability of space in the room selected for rack and equipment installation to ensure it can support the installation of racks currently and additional racks in the future	2	3	-	1
PC2. check the facility's doors have the appropriate height, and the floor is adequately strong to support the movement and installation of racks and equipment	1	3	-	1
PC3. check the availability of the appropriate type of racks for the installation of 5G network equipment, ensuring the racks allow easy cable and device management	2	2	-	1
PC4. ensure the room's circuits can provide the correct voltages and sufficient amperage for all the 5G network equipment	1	2	-	1
PC5. check that there are no sources of heat in and around the room selected for the installation of racks and equipment	1	2	-	1
PC6. ensure there is adequate active or passive ventilation, such as ducts, dropped ceilings, or Computer Room Air Conditioners (CRACs) for the dissipation of heat generated by the equipment	1	4	-	1
PC7. prepare a plan for the placement of the racks in relation to the room and important resources, such as power circuits and cooling equipment	3	4	-	1
<i>Carry out the installation of rack and equipment for 5G networks</i>	19	30	-	13
PC8. arrange racks in a hot-aisle/cold-aisle layout to reduce energy use	1	2	-	1
PC9. plan the installation of equipment on racks to maximize space utilisation inside the racks, and permit easy service and future equipment installations	3	3	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. check gNodeB received from the vendor to ensure it is not damaged or faulty	1	3	-	1
PC11. coordinate with the relevant personnel or manufacturer for the repair or replacement of damaged/faulty gNodeB	1	2	-	1
PC12. set up gNodeB and other 5G network equipment on racks safely and secure them using nuts and screws, adhering to the load rating of racks	3	4	-	2
PC13. ensure to place the heavy equipment at the bottom of racks to prevent them from becoming top-heavy and prone to tipping over	1	2	-	1
PC14. carry out the installation of blade servers and other high-density and high-wattage loads in multiple racks to prevent problematic hot spots	3	3	-	1
PC15. follow the manufacturer instructions provided in the installation manual for safe and successful installation of equipment	1	2	-	1
PC16. identify faults/malfunctions in the equipment and carry out troubleshooting as per the manufacturer instructions	2	3	-	1
PC17. coordinate with the manufacturer to resolve any manufacturing faults	1	2	-	1
PC18. use pre-configured equipment provided by the manufacturer or follow the manufacturer's instructions to configure the operating system with the Virtual Machine (VM) ware	2	4	-	2
NOS Total	30	50	-	20

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N6104
NOS Name	Carry out Rack Level Installation
Sector	Telecom
Sub-Sector	Network Managed Services
Occupation	Network (Active Components Installation)
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQF Clearance Date	31/03/2022

Qualification Pack

TEL/N6105: Carry out 5G active network installation

Description

This OS unit is about carrying out different types of cabling and installations in the process of 5G active network installation.

Scope

The scope covers the following :

- Carry out power, earthing and RF cabling
- Install and commission backhaul connectivity

Elements and Performance Criteria

Carry out power, earthing and RF cabling

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

- PC1.** ensure the availability of required installation materials as per the installation document such as terminal connectors, thimbles, etc.
- PC2.** determine the power requirements of the gNodeB and other equipment
- PC3.** check the availability of appropriate power, earthing, and Radio Frequency (RF) cables
- PC4.** check the cables to ensure they are not faulty or damaged and coordinate with the relevant personnel to get them replaced
- PC5.** install power cables between the equipment and power source to ensure power supply to the equipment
- PC6.** install earthing cables to the earth source, ensuring the earth value is within the specified limits
- PC7.** carry out the installation of RF cables between gNodeB/ other equipment and the antennas on the cell tower
- PC8.** ensure routing and termination of cables between omnidirectional and directional or sector antennas in such a manner to allow their easy maintenance
- PC9.** check for transmission between the equipment and the antennas and carry out appropriate troubleshooting, as required

Install and commission backhaul connectivity

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

- PC10.** coordinate with the relevant personnel to establish high throughput ethernet/fiber-based backhaul connectivity on the Ethernet interface
- PC11.** use fiber optic for backhaul connectivity for the 5G network
- PC12.** terminate the backhaul connectivity to ensure gNodeB is configurable and connected to the central office
- PC13.** create Centralised Unit-Distributed Unit (CU-DU) split architecture
- PC14.** configure gNodeB to the Centralised Unit (CU)
- PC15.** follow the recommended measures to make the gNodeB visible in the central unit so that commissioning commands can be given from the central unit

Qualification Pack

- PC16.** install the appropriate environmental alarm systems and configure them to the central unit so that the site can be monitored in the network operation centre
- PC17.** install the appropriate Operating System (OS) and the Virtual Machine (VM) ware

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the importance of the 3rd Generation Partnership Project (3GPP) and their releases relevant to the 5G network
- KU2.** the constituent modules of 5G gNodeB and their functions
- KU3.** the process of determining the power requirements of the gNodeB and other equipment
- KU4.** use of different types of power, earthing and RF cables
- KU5.** the process of installing power cables, earthing cables and RF cables
- KU6.** the importance of ensuring appropriate routing and termination of cables between omnidirectional and directional or sector antennas to allow their easy maintenance
- KU7.** the process of checking for transmission between the equipment and the antennas and the appropriate troubleshooting to be carried out for common faults
- KU8.** the process of establishing throughput ethernet/fiber-based backhaul connectivity on Ethernet interface
- KU9.** the process of terminating the backhaul connectivity to ensure gNodeB is configurable and connected to the central office
- KU10.** the process of creating Centralised Unit Distributed Unit (CU-DU) architecture
- KU11.** the process of configuring gNodeB to the Centralised Unit (CU)
- KU12.** the importance of making the gNodeB visible in the central unit so that commissioning commands can be given from the central unit
- KU13.** the process of installing the appropriate environmental alarm systems and configuring them to the central unit so that the site can be monitored in the network operation centre
- KU14.** the process of installing the appropriate Operating System and VM ware

Generic Skills (GS)

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

- GS1.** maintain work related records
- GS2.** read the relevant guides and literature to get the latest information about the field of work
- GS3.** communicate clearly and politely
- GS4.** listen attentively to understand the instructions provided by supervisors
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** identify appropriate solutions to work related issues
- GS7.** take quick decision in case of an emergency/accident

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out power, earthing and RF cabling</i>	10	28	-	7
PC1. ensure the availability of required installation materials as per the installation document such as terminal connectors, thimbles, etc.	1	3	-	1
PC2. determine the power requirements of the gNodeB and other equipment	1	2	-	-
PC3. check the availability of appropriate power, earthing, and Radio Frequency (RF) cables	1	3	-	1
PC4. check the cables to ensure they are not faulty or damaged and coordinate with the relevant personnel to get them replaced	1	3	-	1
PC5. install power cables between the equipment and power source to ensure power supply to the equipment	1	4	-	-
PC6. install earthing cables to the earth source, ensuring the earth value is within the specified limits	1	4	-	1
PC7. carry out the installation of RF cables between gNodeB/ other equipment and the antennas on the cell tower	1	2	-	1
PC8. ensure routing and termination of cables between omnidirectional and directional or sector antennas in such a manner to allow their easy maintenance	1	3	-	1
PC9. check for transmission between the equipment and the antennas and carry out appropriate troubleshooting, as required	2	4	-	1
<i>Install and commission backhaul connectivity</i>	20	32	-	3
PC10. coordinate with the relevant personnel to establish high throughput ethernet/fiber-based backhaul connectivity on the Ethernet interface	2	2	-	-
PC11. use fiber optic for backhaul connectivity for the 5G network	2	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. terminate the backhaul connectivity to ensure gNodeB is configurable and connected to the central office	2	4	-	1
PC13. create Centralised Unit-Distributed Unit (CU-DU) split architecture	3	5	-	1
PC14. configure gNodeB to the Centralised Unit (CU)	3	5	-	1
PC15. follow the recommended measures to make the gNodeB visible in the central unit so that commissioning commands can be given from the central unit	1	3	-	-
PC16. install the appropriate environmental alarm systems and configure them to the central unit so that the site can be monitored in the network operation centre	4	5	-	-
PC17. install the appropriate Operating System (OS) and the Virtual Machine (VM) ware	3	6	-	-
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N6105
NOS Name	Carry out 5G active network installation
Sector	Telecom
Sub-Sector	Network Managed Services
Occupation	Network (Active Components Installation)
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

Qualification Pack

TEL/N6246: Follow the Occupational Health and Safety Instructions during Tower Climbing

Description

This OS unit is about following the applicable occupational health and safety instructions during tower climbing.

Scope

The scope covers the following :

- Perform the pre-climb tower inspection
- Check the safety equipment and work site conditions
- Carry out tower operations following safety instructions

Elements and Performance Criteria

Perform the pre-climb tower inspection

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

- PC1.** perform a visual observation of the tower using binoculars to check for loose or missing hardware and ensure such issues are fixed before climbing the tower
- PC2.** identify any climbing obstructions and hazards, such as bird roosts and insect nests and take appropriate measures to deal with them
- PC3.** inspect turnbuckles for correct installation and check the tension of the guy wires on guyed towers to ensure they are within their recommended tension range
- PC4.** check guy preforms on guyed towers and thimbles for signs of damage
- PC5.** check the verticality of the tower to identify the eccentricity/leaning of the tower due to weakness in the tower members by wind load or excessive line loading
- PC6.** ensure all the identified issues with the tower are addressed through coordination with the relevant authority before tower climbing

Check the safety equipment and work site conditions

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

- PC7.** check the availability of appropriate tower ladders, hoisting and rigging equipment, and relevant tools and machinery for climbing towers ensuring they are appropriately maintained and safe for use
- PC8.** check the availability of appropriate Personal Protective Equipment (PPE) and inspect it to ensure it is well-maintained and safe for use, ensuring not to undertake any rigging work without PPE
- PC9.** check the availability of a fully equipped first aid kit at the work site to deal with minor medical emergencies
- PC10.** check the strength of radio waves at the tower work site using a Radio Frequency (RF) detector to ensure adherence to applicable RF safety regulations
- PC11.** check there are no serious electrical hazards at the tower work site, such as overhead electricity wires

Qualification Pack

- PC12.** coordinate with the relevant personnel to conduct comprehensive safety planning, including a Job Hazard Analysis (JHA) and an Emergency Action Plan (EAP)
- PC13.** identify unsafe conditions at the work site and report them promptly to the appropriate authority
- PC14.** check the weather conditions through reliable sources to ensure no storm, lightning or other adverse weather conditions are expected that could impact working at heights on towers
- PC15.** measure the wind velocity using an anemometer to ensure tower climbing is carried out when the wind velocity is under the recommended limits
- PC16.** ensure any equipment, machinery, vehicles, or materials which are potential danger near tower sites and live wires are maintained at a safe distance

Carry out tower operations following safety instructions

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

- PC17.** follow the applicable health and safety protocol at the work site, including registering
- PC18.** use a full-body harness tied off at appropriate spots on the tower to maintain complete tie-off while on the tower
- PC19.** use a safety cable climb or two or more lanyards when moving on towers
- PC20.** use the appropriate PPE while climbing up and down and working on towers, following the manufacturer's instructions to ensure its effectiveness
- PC21.** follow the recommended tower climbing practices while climbing and working on telecom towers to minimise any injuries and untoward incidents during tower climbing
- PC22.** use two-way radio while working on towers to maintain continuous communication with the ground crew
- PC23.** coordinate with the relevant authority to report impaired physical health and stop working at heights under the influence of drowsiness-inducing medication
- PC24.** carry out work away from electricity wires or co-ordinate with the relevant authority to have electricity turned off while working near electricity wires, as appropriate
- PC25.** ensure to place appropriate warning signs to warn co-workers while working near live electricity wires
- PC26.** ensure compliance with the applicable health and safety standards and regulations
- PC27.** administer first aid for different types of medical emergencies
- PC28.** assist the relevant personnel in preparing incident reports by providing information regarding tower climbing incidents

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the importance of getting adequate training and practice in tower climbing to minimise the injuries and untoward incidents during tower climbing
- KU2.** the importance of ensuring the availability of well-maintained safety equipment before climbing towers
- KU3.** the appropriate PPE required for tower climbing, i.e. full body harness designed for tower climbing, dual leg shock-absorbing lanyard, safety climb cable attachment device (Cable Grab), climbing helmet, gloves, steel-toed boots with rigid sole, clear or tinted eyeglasses, positioning lanyard, carabiners etc.

Qualification Pack

- KU4.** the importance of ensuring the availability of a fully-equipped first aid kit at the work site
- KU5.** the benefit and importance of using two way radio for telecom riggers to maintain communication with ground crew
- KU6.** the process of administering first aid for different types of medical emergencies
- KU7.** the importance of identifying unsafe conditions at the work site and reporting them promptly to the appropriate authority following the applicable reporting process
- KU8.** the importance of checking the availability of relevant PPE and not undertaking any rigging work without PPE
- KU9.** the importance and process of checking the PPE to ensure it is functioning properly and safe to use
- KU10.** the importance of conducting comprehensive safety planning, including a Job Hazard Analysis (JHA) and an Emergency Action Plan (EAP) for every job site
- KU11.** the importance and process of checking weather conditions and avoiding any work at heights during adverse weather conditions
- KU12.** the importance of not working at heights in case of impaired physical health, such as being under medication that may cause drowsiness affecting the ability to work with concentration at elevations
- KU13.** the importance of continually enhancing safety skills and awareness through regular training
- KU14.** the process of conducting inspections of tools, hoisting and rigging equipment, and other machinery
- KU15.** the applicable electrical health and safety standards
- KU16.** the appropriate climbing and working practices to be adopted for a range of telecom structures, such as towers, poles and other steel structures
- KU17.** the applicable health and safety standards and regulations
- KU18.** the importance and process of preparing and reviewing incident reports for tower climbing incidents to avoid any similar incidents in future

Generic Skills (GS)

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

- GS1.** maintain work related records
- GS2.** read the relevant guides and literature to get the latest information about the field of work
- GS3.** communicate clearly and politely
- GS4.** listen attentively to understand the instructions being given
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** identify appropriate solutions to work-related issues
- GS7.** take quick decisions to deal with any emergencies or accidents

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform the pre-climb tower inspection</i>	7	12	-	3
PC1. perform a visual observation of the tower using binoculars to check for loose or missing hardware and ensure such issues are fixed before climbing the tower	1	2	-	1
PC2. identify any climbing obstructions and hazards, such as bird roosts and insect nests and take appropriate measures to deal with them	1	2	-	-
PC3. inspect turnbuckles for correct installation and check the tension of the guy wires on guyed towers to ensure they are within their recommended tension range	1	2	-	1
PC4. check guy preforms on guyed towers and thimbles for signs of damage	1	2	-	-
PC5. check the verticality of the tower to identify the eccentricity/leaning of the tower due to weakness in the tower members by wind load or excessive line loading	2	2	-	1
PC6. ensure all the identified issues with the tower are addressed through coordination with the relevant authority before tower climbing	1	2	-	-
<i>Check the safety equipment and work site conditions</i>	11	20	-	7
PC7. check the availability of appropriate tower ladders, hoisting and rigging equipment, and relevant tools and machinery for climbing towers ensuring they are appropriately maintained and safe for use	1	2	-	1
PC8. check the availability of appropriate Personal Protective Equipment (PPE) and inspect it to ensure it is well-maintained and safe for use, ensuring not to undertake any rigging work without PPE	1	2	-	-
PC9. check the availability of a fully equipped first aid kit at the work site to deal with minor medical emergencies	1	2	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. check the strength of radio waves at the tower work site using a Radio Frequency (RF) detector to ensure adherence to applicable RF safety regulations	2	2	-	-
PC11. check there are no serious electrical hazards at the tower work site, such as overhead electricity wires	1	2	-	1
PC12. coordinate with the relevant personnel to conduct comprehensive safety planning, including a Job Hazard Analysis (JHA) and an Emergency Action Plan (EAP)	1	2	-	-
PC13. identify unsafe conditions at the work site and report them promptly to the appropriate authority	1	2	-	1
PC14. check the weather conditions through reliable sources to ensure no storm, lightning or other adverse weather conditions are expected that could impact working at heights on towers	1	2	-	1
PC15. measure the wind velocity using an anemometer to ensure tower climbing is carried out when the wind velocity is under the recommended limits	1	2	-	1
PC16. ensure any equipment, machinery, vehicles, or materials which are potential danger near tower sites and live wires are maintained at a safe distance	1	2	-	1
<i>Carry out tower operations following safety instructions</i>	12	23	-	5
PC17. follow the applicable health and safety protocol at the work site, including registering	1	2	-	1
PC18. use a full-body harness tied off at appropriate spots on the tower to maintain complete tie-off while on the tower	1	2	-	-
PC19. use a safety cable climb or two or more lanyards when moving on towers	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC20. use the appropriate PPE while climbing up and down and working on towers, following the manufacturer's instructions to ensure its effectiveness	1	2	-	-
PC21. follow the recommended tower climbing practices while climbing and working on telecom towers to minimise any injuries and untoward incidents during tower climbing	1	2	-	1
PC22. use two-way radio while working on towers to maintain continuous communication with the ground crew	1	2	-	-
PC23. coordinate with the relevant authority to report impaired physical health and stop working at heights under the influence of drowsiness-inducing medication	1	2	-	1
PC24. carry out work away from electricity wires or co-ordinate with the relevant authority to have electricity turned off while working near electricity wires, as appropriate	1	2	-	1
PC25. ensure to place appropriate warning signs to warn co-workers while working near live electricity wires	1	2	-	1
PC26. ensure compliance with the applicable health and safety standards and regulations	1	2	-	-
PC27. administer first aid for different types of medical emergencies	1	2	-	-
PC28. assist the relevant personnel in preparing incident reports by providing information regarding tower climbing incidents	1	1	-	-
NOS Total	30	55	-	15

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N6246
NOS Name	Follow the Occupational Health and Safety Instructions during Tower Climbing
Sector	Telecom
Sub-Sector	Network Managed Services
Occupation	Network Operation and Maintenance
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

Qualification Pack

TEL/N9101: Organise Work and Resources as per Health and Safety Standards

Description

This OS unit is about planning work and following sustainable as well as healthy practices for safety and optimal use of resources.

Scope

The scope covers the following :

- Perform work as per quality standards
- Maintain safe, healthy and secure working environment
- Conserve material/energy/electricity
- Use effective waste management/recycling practices

Elements and Performance Criteria

Perform work as per quality standards

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

- PC1.** keep workspace clean and tidy
- PC2.** perform individual role and responsibilities as per the job role while taking accountability for the work
- PC3.** record/document tasks completed as per the requirements within specific timelines
- PC4.** implement schedules to ensure timely completion of tasks
- PC5.** identify the cause of a problem related to own work and validate it
- PC6.** analyse problems accurately and communicate different possible solutions to the problem

Maintain safe, healthy and secure working environment

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

- PC7.** comply with organisation's current health, safety, security policies and procedures
- PC8.** check for water spills in and around the work space and escalate these to the appropriate authority
- PC9.** report any identified breaches in health, safety, and security policies and procedures to the designated person
- PC10.** use safety materials such as goggles, gloves, ear plugs, caps, ESD pins, covers, shoes, etc.
- PC11.** avoid damage of components due to negligence in ESD procedures or any other loss due to safety negligence
- PC12.** identify hazards such as illness, accidents, fires or any other natural calamity safely, as per organisation's emergency procedures, within the limits of individual's authority
- PC13.** participate regularly in fire drills or other safety related workshops organised by the company
- PC14.** report any hazard outside the individual's authority to the relevant person in line with organisational procedures and warn others who may be affected

Qualification Pack

- PC15.** maintain appropriate posture while sitting/standing for long hours
- PC16.** handle heavy and hazardous materials with care, while maintaining appropriate posture
- PC17.** sanitize workstation and equipment regularly
- PC18.** clean hands with soap, alcohol-based sanitizer regularly
- PC19.** avoid contact with anyone suffering from communicable diseases and take necessary precautions
- PC20.** take safety precautions while travelling e.g. maintain 1m distance from others, sanitize hands regularly, wear masks, etc.
- PC21.** report hygiene and sanitation issues to appropriate authority
- PC22.** follow recommended personal hygiene and sanitation practices, for example, washing/sanitizing hands, covering face with a bent elbow while coughing/sneezing, using PPE, etc.

Conserve material/energy/electricity

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

- PC23.** optimize usage of material including water in various tasks/activities/processes
- PC24.** use resources such as water, electricity and others responsibly
- PC25.** carry out routine cleaning of tools, machine and equipment
- PC26.** optimize use of electricity/energy in various tasks/activities/processes
- PC27.** perform periodic checks of the functioning of the equipment/machine and rectify wherever required
- PC28.** report malfunctioning and lapses in maintenance of equipment
- PC29.** use electrical equipment and appliances properly

Use effective waste management/recycling practices

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

- PC30.** identify recyclable, non-recyclable and hazardous waste
- PC31.** deposit recyclable and reusable material at identified location
- PC32.** dispose non-recyclable and hazardous waste as per recommended processes

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** strategies pertinent to their field (such as internet searches, asking peers and managers, enrolling for courses and certifications, etc.) that can be used to pursue an advancement in their skills
- KU2.** key performance indicators for the new tasks
- KU3.** feedback processes and formats
- KU4.** timelines and goals as well as their relevance to work allocated
- KU5.** importance of quality and timely delivery of the product/service
- KU6.** escalation matrix and its importance, especially in case of emergencies
- KU7.** ways of time and cost management
- KU8.** rules/regulation for maintaining health and safety at workplace

Qualification Pack

- KU9.** meaning of hazard, different types of health and safety hazards found in the workplace, risks and threats based on the nature of work
- KU10.** relevant signage, warnings, labels or descriptions on equipment, etc. while carrying out work activities
- KU11.** procedures to report breaches in health, safety and security
- KU12.** organisation's procedures for different emergency situations and the importance of following the same
- KU13.** different methods of cleaning, disinfection, sterilization, and sanitization
- KU14.** significance of personal hygiene practice including hand hygiene
- KU15.** path of disease transmission
- KU16.** correct method of donning and doffing of PPE
- KU17.** ways of managing resources and material efficiently
- KU18.** common electrical problems and common practices of conserving electricity
- KU19.** categorization of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics and use of different colours of dustbins
- KU20.** organisation's procedures for minimizing waste
- KU21.** waste management and methods of waste disposal
- KU22.** common sources of pollution and ways to minimize it

Generic Skills (GS)

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

- GS1.** improve and modify work practices
- GS2.** complete tasks efficiently and accurately within stipulated time
- GS3.** develop skills and mastery of the technologies prevalent in the industry
- GS4.** write in at least one language and complete written work with attention to detail
- GS5.** utilize time and manage workload efficiently
- GS6.** read and comprehend instructions and documents
- GS7.** accept feedback in a constructive way
- GS8.** seek clarifications from superior about the job requirement
- GS9.** read and comprehend statutory documents relevant to safety and hygiene
- GS10.** refer all anomalies to the concerned persons
- GS11.** analyze situations and make appropriate decisions
- GS12.** decide the most suitable course of action for completing the task within resources

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform work as per quality standards</i>	4	9	-	2
PC1. keep workspace clean and tidy	-	1	-	-
PC2. perform individual role and responsibilities as per the job role while taking accountability for the work	1	1	-	1
PC3. record/document tasks completed as per the requirements within specific timelines	-	1	-	1
PC4. implement schedules to ensure timely completion of tasks	-	2	-	-
PC5. identify the cause of a problem related to own work and validate it	2	2	-	-
PC6. analyse problems accurately and communicate different possible solutions to the problem	1	2	-	-
<i>Maintain safe, healthy and secure working environment</i>	16	27	-	4
PC7. comply with organisation's current health, safety, security policies and procedures	1	1	-	-
PC8. check for water spills in and around the work space and escalate these to the appropriate authority	1	2	-	1
PC9. report any identified breaches in health, safety, and security policies and procedures to the designated person	1	2	-	1
PC10. use safety materials such as goggles, gloves, ear plugs, caps, ESD pins, covers, shoes, etc.	1	2	-	1
PC11. avoid damage of components due to negligence in ESD procedures or any other loss due to safety negligence	2	3	-	1
PC12. identify hazards such as illness, accidents, fires or any other natural calamity safely, as per organisation's emergency procedures, within the limits of individual's authority	2	1	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. participate regularly in fire drills or other safety related workshops organised by the company	1	3	-	-
PC14. report any hazard outside the individual's authority to the relevant person in line with organisational procedures and warn others who may be affected	1	3	-	-
PC15. maintain appropriate posture while sitting/standing for long hours	1	1	-	-
PC16. handle heavy and hazardous materials with care, while maintaining appropriate posture	1	1	-	-
PC17. sanitize workstation and equipment regularly	1	2	-	-
PC18. clean hands with soap, alcohol-based sanitizer regularly	-	1	-	-
PC19. avoid contact with anyone suffering from communicable diseases and take necessary precautions	-	1	-	-
PC20. take safety precautions while travelling e.g. maintain 1m distance from others, sanitize hands regularly, wear masks, etc.	1	2	-	-
PC21. report hygiene and sanitation issues to appropriate authority	1	1	-	-
PC22. follow recommended personal hygiene and sanitation practices, for example, washing/sanitizing hands, covering face with a bent elbow while coughing/sneezing, using PPE, etc.	1	1	-	-
<i>Conserve material/energy/electricity</i>	7	16	-	3
PC23. optimize usage of material including water in various tasks/activities/processes	1	2	-	-
PC24. use resources such as water, electricity and others responsibly	1	2	-	1
PC25. carry out routine cleaning of tools, machine and equipment	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. optimize use of electricity/energy in various tasks/activities/processes	1	3	-	1
PC27. perform periodic checks of the functioning of the equipment/machine and rectify wherever required	1	3	-	1
PC28. report malfunctioning and lapses in maintenance of equipment	1	2	-	-
PC29. use electrical equipment and appliances properly	1	2	-	-
<i>Use effective waste management/recycling practices</i>	3	8	-	1
PC30. identify recyclable, non-recyclable and hazardous waste	1	2	-	1
PC31. deposit recyclable and reusable material at identified location	1	3	-	-
PC32. dispose non-recyclable and hazardous waste as per recommended processes	1	3	-	-
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N9101
NOS Name	Organise Work and Resources as per Health and Safety Standards
Sector	Telecom
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

Qualification Pack

TEL/N9102: Interact Effectively with Team Members and Customers

Description

This OS unit is about interacting with superiors and colleagues as well as customers and other stakeholders in own or other work groups within as well as outside the organisation.

Scope

The scope covers the following :

- Interact effectively with superiors
- Interact effectively with colleagues and customers
- Respect differences of gender and ability

Elements and Performance Criteria

Interact effectively with superiors

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

- PC1.** receive work requirements from superiors and customers and interpret them correctly
- PC2.** inform the supervisor and/or concerned person about any unforeseen disruptions or delays
- PC3.** participate in decision making by providing facts and figures, giving/accepting constructive suggestions
- PC4.** rectify errors as per feedback and ensure the errors are not repeated

Interact effectively with colleagues and customers

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

- PC5.** comply with organisation's policies and procedures for working with team members
- PC6.** communicate professionally using appropriate mode of communication such as face-to-face, telephonic and written
- PC7.** respond to queries and seek/provide clarifications if required
- PC8.** co-ordinate with team to integrate work as per requirements
- PC9.** resolve conflicts within the team/with customers to achieve smooth workflow
- PC10.** recognize emotions accurately in self and others to build good relationships
- PC11.** prioritize team and organization goals above personal goals

Respect differences of gender and ability

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

- PC12.** maintain a conducive environment for all the genders at the workplace
- PC13.** encourage appropriate behavior and conduct with people across gender
- PC14.** assist team members with disability in overcoming any challenges faced in work
- PC15.** practice appropriate verbal and non-verbal communication while interacting with People with Disability (PwD)
- PC16.** ensure equal participation of the people across genders in discussions

Knowledge and Understanding (KU)

Qualification Pack

The individual on the job needs to know and understand:

- KU1.** organisation's policies on dress code, workplace timings, workplace behaviour, performance management, incentives, delivery standards, information security, etc.
- KU2.** organisation's hierarchy and escalation matrix
- KU3.** importance of establishing good working relationships with colleagues and superiors
- KU4.** importance of helping colleagues with problems, in order to meet quality and time standards as a team
- KU5.** different means and methods of communication
- KU6.** different types of information that colleagues might need and the importance of providing this information in an appropriate manner
- KU7.** organisation's policies and procedures for working with colleagues and superiors
- KU8.** importance of understanding consequences of gender biased behaviour
- KU9.** gender based concepts, issues and legislation
- KU10.** organisation standards and guidelines to be followed for PwD and knowledge about laws, acts and provisions defined for PwD by the statutory bodies and the right way to use them including various medical conditions associated with PwD
- KU11.** health and safety requirements at workplace for PwD
- KU12.** process of recruiting people for a particular job profile w.r.t PwD and gender
- KU13.** various government/private schemes and benefits available for PwD and information about various institutes working for PwD to enable in providing livelihood opportunities for PwD

Generic Skills (GS)

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

- GS1.** read and comprehend forms, documents and records
- GS2.** read and write in English and/or local language
- GS3.** complete work with attention to detail
- GS4.** listen effectively and orally communicate information
- GS5.** work as per customer requirements
- GS6.** communicate with empathy across genders and PwD
- GS7.** improve and modify work practices
- GS8.** maintain positive and effective relationships with colleagues and customers
- GS9.** evaluate the possible solution(s) to the problem

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact effectively with superiors</i>	7	15	-	2
PC1. receive work requirements from superiors and customers and interpret them correctly	1	2	-	-
PC2. inform the supervisor and/or concerned person about any unforeseen disruptions or delays	2	4	-	1
PC3. participate in decision making by providing facts and figures, giving/accepting constructive suggestions	2	5	-	1
PC4. rectify errors as per feedback and ensure the errors are not repeated	2	4	-	-
<i>Interact effectively with colleagues and customers</i>	7	26	-	4
PC5. comply with organisation's policies and procedures for working with team members	1	2	-	-
PC6. communicate professionally using appropriate mode of communication such as face-to-face, telephonic and written	2	4	-	1
PC7. respond to queries and seek/provide clarifications if required	2	4	-	1
PC8. co-ordinate with team to integrate work as per requirements	-	3	-	-
PC9. resolve conflicts within the team/with customers to achieve smooth workflow	1	5	-	1
PC10. recognize emotions accurately in self and others to build good relationships	1	4	-	-
PC11. prioritize team and organization goals above personal goals	-	4	-	1
<i>Respect differences of gender and ability</i>	11	24	-	4
PC12. maintain a conducive environment for all the genders at the workplace	2	5	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. encourage appropriate behavior and conduct with people across gender	2	5	-	1
PC14. assist team members with disability in overcoming any challenges faced in work	3	4	-	1
PC15. practice appropriate verbal and non-verbal communication while interacting with People with Disability (PWD)	2	4	-	1
PC16. ensure equal participation of the people across genders in discussions	2	6	-	-
NOS Total	25	65	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N9102
NOS Name	Interact Effectively with Team Members and Customers
Sector	Telecom
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

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	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022

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/N6104.Carry out Rack Level Installation	30	50	-	20	100	20
TEL/N6105.Carry out 5G active network installation	30	60	-	10	100	20
TEL/N6246.Follow the Occupational Health and Safety Instructions during Tower Climbing	30	55	-	15	100	20
TEL/N9101.Organise Work and Resources as per Health and Safety Standards	30	60	-	10	100	15
TEL/N9102.Interact Effectively with Team Members and Customers	25	65	-	10	100	15
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	165	320	-	65	550	100

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

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.