



Wireless Network Technician

QP Code: TEL/Q4111

Version: 1.0

NSQF Level: 4

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TEL/Q4111: Wireless Network Technician

Brief Job Description

The individual is responsible for supporting and maintaining wireless network infrastructure, including analysing performance reports, addressing customer complaints, performing maintenance at base station and radio sites, and assisting in the deployment of 5G networks. The role involves defining 5G architecture standards, preparing and verifying hardware, designing spectrum allocation, and implementing 5G New Radio (NR) and Radio Access Network (RAN) elements in compliance with regulatory and operator guidelines. The individual works closely with cross-functional teams to ensure optimal network performance and quality of service.

Personal Attributes

The individual must have strong analytical skills, problem-solving ability, and attention to detail. Good communication skills, teamwork, and adaptability to evolving technologies are essential. They should be comfortable working at telecom sites, following safety protocols, and managing time efficiently. The role requires readiness to work under pressure, willingness to learn new technologies, and the ability to interact professionally with stakeholders, including customers, vendors, and colleagues.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TEL/N4147: Perform Base Station System Support Operations](#)
2. [TEL/N4144: Analyse Performance Reports and Conduct Network Optimisation](#)
3. [TEL/N4145: Integrate and Configure 5G Network Systems](#)
4. [TEL/N4146: Set Standards, Prepare Hardware, and Implement 5G Network](#)
5. [TEL/N6287: Operational Skills](#)
6. [TEL/N6285: Maintain Workplace Safety, Resource Optimization, and Hygiene Standards](#)
7. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Telecom
Sub-Sector	Network Managed Services
Occupation	Operations and Maintenance - Passive Infrastructure

Country	India
NSQF Level	4
Credits	20
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7422.0206
Minimum Educational Qualification & Experience	12th grade Pass OR Completed 2nd year of 3-year diploma (after 10th) and pursuing regular diploma (Diploma in Telecommunications/Electronics/ IT/ AI/Computer science/Industrial/Electrical etc. or a combination of these) OR Previous relevant Qualification of NSQF Level (3.5) with 1.5 years of experience OR Previous relevant Qualification of NSQF Level (3) with 3 Years of experience
Minimum Level of Education for Training in School	12th Class
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	NA
NSQC Approval Date	
Version	1.0

TEL/N4147: Perform Base Station System Support Operations

Description

This NOS covers carrying out base station subsystem (BSS) operations including performance analysis, preventive and corrective maintenance at the base station controller (BSC), and operational tasks at radio sites, ensuring network availability, quality, and adherence to safety and organisational protocols.

Scope

The scope covers the following :

- work performed at BSC facilities, radio sites, and field locations
- includes interaction with network monitoring centres (NOC), field engineers, and vendors
- may involve working at heights, in enclosed spaces, and in varying environmental conditions

Elements and Performance Criteria

Carry out BSS operational tasks

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

- PC1.** identify the role and responsibilities of a BSS support engineer in telecom network operations
- PC2.** interpret work instructions and job schedules from the network operations team
- PC3.** access and monitor BSS system dashboards for alarms, KPIs, and performance reports
- PC4.** verify login credentials and access rights for system monitoring tools
- PC5.** maintain logs of daily operational activities for compliance and tracking

Analyse performance and customer issues

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

- PC6.** collect, review, and interpret network performance reports from the BSC
- PC7.** analyse customer complaints for service disruptions or quality issues
- PC8.** correlate faults with KPIs to determine root causes and recommend solutions
- PC9.** prepare incident reports based on data from NOC and customer feedback
- PC10.** escalate unresolved performance issues to higher technical teams

Perform preventive maintenance at BSC

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

- PC11.** carry out preventive maintenance checks on BSC equipment as per schedule
- PC12.** verify the functionality of hardware modules and replace faulty components
- PC13.** clean and inspect cooling systems to maintain optimal equipment temperature
- PC14.** perform backup and restore procedures for BSC configuration files
- PC15.** record maintenance activities in the asset register

Perform corrective maintenance at BSC

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

- PC16.** troubleshoot hardware and software faults in BSC systems
- PC17.** replace damaged cables, connectors, and modules
- PC18.** coordinate with vendors for warranty repairs or replacements

PC19. validate system performance post-repair through test calls and traffic analysis

Perform operational activities at radio sites

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

PC20. conduct visual inspection of antennas, feeders, and RF cables at radio sites

PC21. verify site power supply, grounding, and environmental control systems

PC22. check site access control systems for security compliance

PC23. report any site hazards or anomalies to the safety team

PC24. record and report operational status and site visit findings to the NOC

PC25. ensure proper labelling and tagging of all equipment at the site

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. organisation's telecom network architecture and BSS structure

KU2. work order processes and escalation procedures

KU3. SLA parameters for uptime, latency, and call quality

KU4. occupational health and safety policies for telecom sites

KU5. environmental compliance norms for telecom operations

KU6. vendor management protocols and service contracts

KU7. BSC hardware components and functions

KU8. telecom KPIs: call drop rate, traffic channel availability, handover success rate, etc.

KU9. preventive and corrective maintenance techniques for BSS equipment

KU10. tools and software for performance analysis and alarm monitoring

KU11. fault correlation techniques and root cause analysis methods

KU12. backup and restore processes for telecom network configurations

KU13. RF components used in radio sites (antennas, feeders, combiners, etc.)

KU14. site grounding and earthing standards

KU15. basic electrical systems used in telecom sites

KU16. cooling and ventilation systems for telecom equipment

KU17. access control systems at telecom facilities

KU18. power supply systems including UPS and DG sets

KU19. telecom cable types and their specifications

KU20. fibre and copper testing methods relevant to BSS operations

Generic Skills (GS)

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

GS1. follow standard operating procedures for BSS support operations

GS2. use diagnostic tools and software to identify network issues

GS3. document maintenance and operational activities accurately

GS4. manage time effectively during site visits and repairs

- GS5.** comply with safety and environmental guidelines at all times
- GS6.** apply logical reasoning to resolve technical problems
- GS7.** adapt to evolving telecom technologies and tools
- GS8.** collaborate with cross-functional teams to achieve operational goals
- GS9.** maintain confidentiality of network data and customer information
- GS10.** interpret technical manuals, schematics, and network diagrams
- GS11.** communicate clearly with NOC teams, field staff, and customers
- GS12.** prepare and present performance reports using MS Office tools
- GS13.** read and interpret alarm logs and system notifications
- GS14.** draft incident reports and escalation notes professionally
- GS15.** listen actively to customer and team inputs before taking action
- GS16.** manage priorities when handling multiple network issues
- GS17.** record and update asset inventory accurately
- GS18.** operate handheld test equipment for diagnostics
- GS19.** ensure continuous learning through self-study and training programs
- GS20.** maintain a professional appearance and behaviour during site interactions

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out BSS operational tasks</i>	6	10	-	4
PC1. identify the role and responsibilities of a BSS support engineer in telecom network operations	2	2	-	1
PC2. interpret work instructions and job schedules from the network operations team	1	2	-	1
PC3. access and monitor BSS system dashboards for alarms, KPIs, and performance reports	1	2	-	1
PC4. verify login credentials and access rights for system monitoring tools	1	2	-	1
PC5. maintain logs of daily operational activities for compliance and tracking	1	2	-	-
<i>Analyse performance and customer issues</i>	6	11	-	5
PC6. collect, review, and interpret network performance reports from the BSC	1	3	-	1
PC7. analyse customer complaints for service disruptions or quality issues	1	2	-	1
PC8. correlate faults with KPIs to determine root causes and recommend solutions	2	2	-	1
PC9. prepare incident reports based on data from NOC and customer feedback	1	2	-	1
PC10. escalate unresolved performance issues to higher technical teams	1	2	-	1
<i>Perform preventive maintenance at BSC</i>	6	11	-	4
PC11. carry out preventive maintenance checks on BSC equipment as per schedule	1	2	-	1
PC12. verify the functionality of hardware modules and replace faulty components	2	2	-	1
PC13. clean and inspect cooling systems to maintain optimal equipment temperature	1	3	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. perform backup and restore procedures for BSC configuration files	1	2	-	1
PC15. record maintenance activities in the asset register	1	2	-	-
<i>Perform corrective maintenance at BSC</i>	6	9	-	1
PC16. troubleshoot hardware and software faults in BSC systems	2	3	-	-
PC17. replace damaged cables, connectors, and modules	2	3	-	1
PC18. coordinate with vendors for warranty repairs or replacements	1	1	-	-
PC19. validate system performance post-repair through test calls and traffic analysis	1	2	-	-
<i>Perform operational activities at radio sites</i>	6	9	-	6
PC20. conduct visual inspection of antennas, feeders, and RF cables at radio sites	1	2	-	1
PC21. verify site power supply, grounding, and environmental control systems	1	2	-	1
PC22. check site access control systems for security compliance	1	2	-	1
PC23. report any site hazards or anomalies to the safety team	1	1	-	1
PC24. record and report operational status and site visit findings to the NOC	1	1	-	1
PC25. ensure proper labelling and tagging of all equipment at the site	1	1	-	1
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N4147
NOS Name	Perform Base Station System Support Operations
Sector	Telecom
Sub-Sector	
Occupation	Operations and Maintenance - Passive Infrastructure
NSQF Level	4
Credits	1.5
Version	1.0
Next Review Date	NA

TEL/N4144: Analyse Performance Reports and Conduct Network Optimisation

Description

This NOS covers analysing network performance reports, handling customer complaints, identifying issues in wireless networks, and carrying out optimisation and maintenance activities at base station and radio sites to ensure quality of service.

Scope

The scope covers the following :

- work performed at network operation centres (NOCs), base station controllers (BSCs), and radio sites
- includes preventive maintenance, performance analysis, and service improvement actions
- applies to multi-vendor, multi-technology wireless networks including LTE and 5G.

Elements and Performance Criteria

Analyse network performance

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

- PC1.** collect network performance data from monitoring systems and reports
- PC2.** interpret KPIs such as call drop rate, handover success rate, and data throughput
- PC3.** compare current performance metrics against defined SLAs
- PC4.** identify patterns or recurring issues affecting service quality
- PC5.** correlate performance issues with alarms, faults, or customer complaints
- PC6.** document performance trends and anomalies for management review

Address customer complaints

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

- PC7.** receive and log customer complaints in the ticketing system
- PC8.** categorise complaints based on severity and service impact
- PC9.** perform initial diagnosis based on customer inputs and available data
- PC10.** coordinate with field teams to conduct site checks if required
- PC11.** provide timely updates to customers on complaint resolution progress
- PC12.** close complaints after confirmation of service restoration

Perform maintenance at BSC and radio sites

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

- PC13.** schedule preventive maintenance activities in line with vendor and operator guidelines
- PC14.** perform hardware and software checks on BSC and RAN equipment
- PC15.** inspect power supply, cooling systems, and grounding at radio sites
- PC16.** verify backhaul connectivity and performance
- PC17.** update software patches and firmware where required
- PC18.** replace faulty modules, cables, or connectors

Implement network optimisation

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

- PC19.** analyse cell-level performance to identify congestion or interference
- PC20.** adjust network parameters to optimise coverage and capacity
- PC21.** recommend hardware upgrades or configuration changes
- PC22.** coordinate with RF teams for drive testing and coverage validation
- PC23.** monitor post-optimisation KPIs to ensure improvement
- PC24.** maintain logs of all optimisation activities and outcomes

Ensure compliance and documentation

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

- PC25.** follow safety protocols while working at BSCs and radio sites
- PC26.** maintain records of maintenance, complaints, and optimisation work
- PC27.** comply with regulatory and operator guidelines during all activities
- PC28.** participate in technical review meetings to share performance updates
- PC29.** provide recommendations for future network upgrades based on findings
- PC30.** ensure confidentiality of sensitive network performance data

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** structure of the network operations and maintenance team
- KU2.** SLAs and KPIs defined by the operator for wireless services
- KU3.** escalation matrix for performance and service issues
- KU4.** complaint handling process as per organisation's customer service policy
- KU5.** reporting templates and tools for performance data
- KU6.** working principles of BSC, eNodeB, gNodeB, and associated equipment
- KU7.** key performance indicators (KPIs) and their impact on service quality
- KU8.** use of network monitoring tools and software
- KU9.** common causes of call drops, low throughput, and poor voice quality
- KU10.** preventive and corrective maintenance techniques for wireless sites
- KU11.** RF optimisation methods including parameter tuning and antenna alignment
- KU12.** vendor-specific O&M procedures for different equipment models
- KU13.** firmware and software update processes
- KU14.** root cause analysis techniques for network faults
- KU15.** principles of traffic load balancing and interference management
- KU16.** documentation standards for maintenance and optimisation
- KU17.** health and safety procedures for working at telecom sites
- KU18.** troubleshooting methodology for multi-technology networks
- KU19.** basics of drive testing and post-processing tools
- KU20.** emerging trends in wireless network performance management
- KU21.** regulatory norms for network quality in India

Generic Skills (GS)

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

- GS1.** analyse complex data sets to identify performance issues
- GS2.** apply logical reasoning for fault diagnosis
- GS3.** document findings and corrective actions accurately
- GS4.** follow structured troubleshooting methods
- GS5.** use vendor-specific network management tools
- GS6.** plan and execute preventive maintenance activities
- GS7.** adapt quickly to changes in network load or configuration
- GS8.** coordinate with cross-functional teams for resolution
- GS9.** ensure compliance with SLAs during optimisation work
- GS10.** maintain high attention to detail during inspections
- GS11.** read and interpret performance reports and graphs
- GS12.** prepare clear and concise technical reports
- GS13.** communicate effectively with customers and technical teams
- GS14.** use ticketing systems for complaint management
- GS15.** follow safety protocols at telecom sites
- GS16.** handle sensitive performance data responsibly
- GS17.** work efficiently under pressure to meet deadlines
- GS18.** adapt communication for technical and non-technical audiences
- GS19.** prioritise tasks based on urgency and impact
- GS20.** stay updated with emerging optimisation techniques

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Analyse network performance</i>	6	13	-	2
PC1. collect network performance data from monitoring systems and reports	1	3	-	-
PC2. interpret KPIs such as call drop rate, handover success rate, and data throughput	1	2	-	-
PC3. compare current performance metrics against defined SLAs	1	2	-	1
PC4. identify patterns or recurring issues affecting service quality	1	2	-	-
PC5. correlate performance issues with alarms, faults, or customer complaints	1	2	-	-
PC6. document performance trends and anomalies for management review	1	2	-	1
<i>Address customer complaints</i>	6	9	-	3
PC7. receive and log customer complaints in the ticketing system	1	2	-	-
PC8. categorise complaints based on severity and service impact	1	2	-	1
PC9. perform initial diagnosis based on customer inputs and available data	1	2	-	1
PC10. coordinate with field teams to conduct site checks if required	1	1	-	1
PC11. provide timely updates to customers on complaint resolution progress	1	1	-	-
PC12. close complaints after confirmation of service restoration	1	1	-	-
<i>Perform maintenance at BSC and radio sites</i>	6	10	-	-
PC13. schedule preventive maintenance activities in line with vendor and operator guidelines	1	1	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. perform hardware and software checks on BSC and RAN equipment	1	2	-	-
PC15. inspect power supply, cooling systems, and grounding at radio sites	1	2	-	-
PC16. verify backhaul connectivity and performance	1	1	-	-
PC17. update software patches and firmware where required	1	2	-	-
PC18. replace faulty modules, cables, or connectors	1	2	-	-
<i>Implement network optimisation</i>	6	12	-	6
PC19. analyse cell-level performance to identify congestion or interference	1	2	-	1
PC20. adjust network parameters to optimise coverage and capacity	1	2	-	1
PC21. recommend hardware upgrades or configuration changes	1	2	-	1
PC22. coordinate with RF teams for drive testing and coverage validation	1	2	-	1
PC23. monitor post-optimisation KPIs to ensure improvement	1	2	-	1
PC24. maintain logs of all optimisation activities and outcomes	1	2	-	1
<i>Ensure compliance and documentation</i>	6	6	-	9
PC25. follow safety protocols while working at BSCs and radio sites	1	1	-	1
PC26. maintain records of maintenance, complaints, and optimisation work	1	1	-	2
PC27. comply with regulatory and operator guidelines during all activities	1	1	-	1
PC28. participate in technical review meetings to share performance updates	1	1	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC29. provide recommendations for future network upgrades based on findings	1	1	-	2
PC30. ensure confidentiality of sensitive network performance data	1	1	-	2
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N4144
NOS Name	Analyse Performance Reports and Conduct Network Optimisation
Sector	Telecom
Sub-Sector	
Occupation	Operations and Maintenance - Passive Infrastructure
NSQF Level	4
Credits	6.5
Version	1.0
Next Review Date	NA

TEL/N4145: Integrate and Configure 5G Network Systems

Description

This NOS covering planning, integrating, configuring, and testing 5G network elements, including hardware preparation, spectrum planning, architecture design, and implementation of 5G New Radio (NR) and radio access technologies, ensuring compliance with organisational standards and industry protocols.

Scope

The scope covers the following :

- work performed at network integration sites, data centres, and field locations
- involves collaboration with RF engineers, system integrators, and vendors
- includes both hardware and software configuration activities for 5G network elements

Elements and Performance Criteria

Prepare for 5G network integration

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

- PC1.** review 5G integration plans, network architecture documents, and work orders
- PC2.** verify hardware and software requirements for planned integration activities
- PC3.** inspect and validate 5G network hardware for damage or discrepancies before installation
- PC4.** confirm availability of necessary installation tools, connectors, and accessories
- PC5.** coordinate with logistics and inventory teams for timely delivery of hardware

Set standards and plan network architecture

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

- PC6.** assist in defining network standards for architecture, interfaces, and protocols
- PC7.** participate in the preparation of spectrum allocation and frequency planning documents
- PC8.** map existing network infrastructure for compatibility with 5G integration
- PC9.** identify gaps in current network setup that may affect 5G deployment
- PC10.** update integration plans as per site-specific constraints and requirements

Install and configure 5G network elements

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

- PC11.** position, mount, and connect 5G radio units, antennas, and associated equipment
- PC12.** connect feeder cables, power supply lines, and fibre connections to 5G equipment
- PC13.** configure 5G baseband units and radio access network (RAN) controllers
- PC14.** set parameters for spectrum usage, channel bandwidth, and transmission power
- PC15.** update and verify firmware and software versions for compatibility

Implement and test 5G New Radio and radio access

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

- PC16.** integrate 5G New Radio units into the existing network
- PC17.** perform functional and performance tests for coverage, throughput, and latency
- PC18.** troubleshoot integration-related issues and apply corrective measures

PC19. validate interoperability with existing 4G/LTE and core network elements

PC20. record all test results and integration steps in the project log

Ensure compliance and project closure

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

PC21. follow organisational safety standards during all integration activities

PC22. comply with environmental norms for installation and equipment disposal

PC23. obtain sign-off from the quality assurance team after integration is complete

PC24. update network diagrams and configuration files with post-integration details

PC25. submit final integration and performance reports to the project manager

PC26. participate in post-project review meetings for lessons learned and process improvement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. organisation's 5G deployment strategy and roadmap

KU2. integration process flow and reporting hierarchy

KU3. safety protocols for working at telecom towers and data centres

KU4. environmental and sustainability policies for telecom installations

KU5. vendor coordination procedures and service agreements

KU6. documentation standards for network integration projects

KU7. principles of 5G NR architecture and its key components

KU8. spectrum allocation, frequency planning, and bandwidth considerations

KU9. hardware elements of 5G RAN, including radio units, antennas, and baseband units

KU10. software tools for configuration and performance monitoring

KU11. integration testing methodologies and KPIs for 5G networks

KU12. protocols and interfaces used in 5G (e.g., NG, Xn, F1)

KU13. interoperability principles between 4G LTE and 5G NR

KU14. firmware and software update procedures for 5G equipment

KU15. fault diagnosis and resolution methods in network integration

KU16. network diagram interpretation and architecture planning

KU17. requirements for power supply, grounding, and cooling in 5G sites

KU18. compliance requirements for spectrum use and licensing

KU19. basic cybersecurity measures for 5G network protection

KU20. tools and test equipment for RF measurements and throughput validation

Generic Skills (GS)

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

GS1. apply logical reasoning to troubleshoot integration issues

GS2. follow standard operating procedures for 5G system integration

GS3. work collaboratively with RF, core, and transmission teams

- GS4.** maintain accurate integration logs and documentation
- GS5.** ensure safety compliance during installation and testing
- GS6.** adapt to new technologies and changing integration practices
- GS7.** manage time effectively to meet project deadlines
- GS8.** apply problem-solving techniques in high-pressure environments
- GS9.** comply with regulatory requirements for spectrum and network operation
- GS10.** interpret technical manuals, network diagrams, and test results
- GS11.** communicate effectively with team members and stakeholders
- GS12.** prepare and deliver technical presentations on integration status
- GS13.** use specialised software for network configuration and monitoring
- GS14.** write integration reports in clear and professional language
- GS15.** analyse and interpret performance KPIs to identify gaps
- GS16.** operate RF test instruments such as spectrum analysers and power meters
- GS17.** manage digital documentation in secure repositories
- GS18.** escalate critical integration issues to senior engineers promptly
- GS19.** keep abreast of emerging 5G technologies and standards
- GS20.** maintain professional conduct when interacting with clients and vendors

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for 5G network integration</i>	5	10	-	3
PC1. review 5G integration plans, network architecture documents, and work orders	1	2	-	1
PC2. verify hardware and software requirements for planned integration activities	1	2	-	1
PC3. inspect and validate 5G network hardware for damage or discrepancies before installation	1	2	-	-
PC4. confirm availability of necessary installation tools, connectors, and accessories	1	2	-	-
PC5. coordinate with logistics and inventory teams for timely delivery of hardware	1	2	-	1
<i>Set standards and plan network architecture</i>	5	7	-	1
PC6. assist in defining network standards for architecture, interfaces, and protocols	1	2	-	-
PC7. participate in the preparation of spectrum allocation and frequency planning documents	1	1	-	-
PC8. map existing network infrastructure for compatibility with 5G integration	1	1	-	-
PC9. identify gaps in current network setup that may affect 5G deployment	1	2	-	1
PC10. update integration plans as per site-specific constraints and requirements	1	1	-	-
<i>Install and configure 5G network elements</i>	5	9	-	4
PC11. position, mount, and connect 5G radio units, antennas, and associated equipment	1	2	-	-
PC12. connect feeder cables, power supply lines, and fibre connections to 5G equipment	1	2	-	1
PC13. configure 5G baseband units and radio access network (RAN) controllers	1	2	-	1
PC14. set parameters for spectrum usage, channel bandwidth, and transmission power	1	2	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. update and verify firmware and software versions for compatibility	1	1	-	1
<i>Implement and test 5G New Radio and radio access</i>	5	9	-	3
PC16. integrate 5G New Radio units into the existing network	1	1	-	-
PC17. perform functional and performance tests for coverage, throughput, and latency	1	2	-	1
PC18. troubleshoot integration-related issues and apply corrective measures	1	2	-	1
PC19. validate interoperability with existing 4G/LTE and core network elements	1	2	-	-
PC20. record all test results and integration steps in the project log	1	2	-	1
<i>Ensure compliance and project closure</i>	10	15	-	9
PC21. follow organisational safety standards during all integration activities	2	3	-	2
PC22. comply with environmental norms for installation and equipment disposal	2	2	-	1
PC23. obtain sign-off from the quality assurance team after integration is complete	1	2	-	1
PC24. update network diagrams and configuration files with post-integration details	1	2	-	1
PC25. submit final integration and performance reports to the project manager	2	3	-	2
PC26. participate in post-project review meetings for lessons learned and process improvement	2	3	-	2
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N4145
NOS Name	Integrate and Configure 5G Network Systems
Sector	Telecom
Sub-Sector	
Occupation	Operations and Maintenance - Passive Infrastructure
NSQF Level	4
Credits	2
Version	1.0
Next Review Date	NA

TEL/N4146: Set Standards, Prepare Hardware, and Implement 5G Network

Description

This NOS covers defining architecture standards, preparing and verifying hardware, designing spectrum allocation, and implementing 5G New Radio (NR) and Radio Access Network (RAN) elements to ensure efficient and compliant 5G deployment.

Scope

The scope covers the following :

- applies to planning, preparation, and implementation stages of 5G roll-out
- involves coordination with RF, transmission, and core network teams
- includes adherence to industry and regulatory standards

Elements and Performance Criteria

Define 5G network standards and architecture

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

- PC1.** review 5G technology standards and regulatory requirements
- PC2.** define architecture for RAN, transport, and core layers
- PC3.** document hardware and software specifications
- PC4.** ensure architecture meets capacity, latency, and coverage objectives
- PC5.** validate design against vendor capabilities and compatibility
- PC6.** obtain approvals from relevant stakeholders for final architecture

Prepare hardware for installation

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

- PC7.** inspect 5G hardware for physical damage or missing components
- PC8.** verify hardware specifications against design requirements
- PC9.** ensure availability of installation tools and accessories
- PC10.** check firmware versions and update where necessary
- PC11.** label hardware components as per site layout plan
- PC12.** ensure proper storage and handling to avoid equipment damage

Design spectrum and network configuration

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

- PC13.** analyse spectrum allocation and availability
- PC14.** plan frequency reuse and channel bandwidths to optimise coverage
- PC15.** assign carrier aggregation and MIMO configurations
- PC16.** coordinate with RF team for link budget calculations
- PC17.** ensure compliance with spectrum usage guidelines and licensing norms
- PC18.** simulate network performance under different load conditions

Implement 5G NR and radio access

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

- PC19.** install and integrate gNodeB and associated components
- PC20.** connect power, backhaul, and fronthaul links as per standards
- PC21.** configure site parameters including PCI, TAC, and bandwidth
- PC22.** run initial commissioning scripts and verify status
- PC23.** conduct test calls and data sessions to validate performance
- PC24.** resolve any alarms or integration issues before handover

Document and hand over implementation

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

- PC25.** maintain records of site configuration, test results, and acceptance certificates
- PC26.** provide training to operations teams on site-specific configurations
- PC27.** update network inventory with newly implemented sites
- PC28.** prepare final implementation report for project closure
- PC29.** ensure all work meets operator and regulatory quality standards
- PC30.** close project tasks in coordination with the project manager

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organisational project management and documentation procedures
- KU2.** approval processes for network design and deployment
- KU3.** SLA requirements for 5G deployment projects
- KU4.** roles and responsibilities of various implementation teams
- KU5.** vendor coordination and procurement processes
- KU6.** 5G technology standards (3GPP Release versions)
- KU7.** architecture of 5G RAN, transport, and core networks
- KU8.** hardware specifications for gNodeB, RRH, and fronthaul equipment
- KU9.** spectrum bands and allocation rules for 5G in India
- KU10.** frequency planning and interference management techniques
- KU11.** MIMO, beamforming, and carrier aggregation principles
- KU12.** installation procedures for RAN and supporting infrastructure
- KU13.** commissioning tools and software for 5G equipment
- KU14.** common alarms and troubleshooting methods during integration
- KU15.** power, grounding, and environmental requirements for 5G sites
- KU16.** quality assurance processes for telecom deployments
- KU17.** network simulation tools for performance prediction
- KU18.** test procedures for validating 5G performance
- KU19.** regulatory guidelines for spectrum and network safety
- KU20.** emerging trends in 5G evolution such as network slicing and O-RAN

Generic Skills (GS)

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

- GS1.** follow standard operating procedures for 5G implementation
- GS2.** interpret technical documentation and architecture diagrams
- GS3.** apply problem-solving techniques during integration
- GS4.** coordinate with cross-functional teams for project execution
- GS5.** ensure compliance with project timelines and quality targets
- GS6.** use spectrum planning tools effectively
- GS7.** prepare site-specific documentation accurately
- GS8.** verify hardware readiness before deployment
- GS9.** conduct acceptance testing as per checklists
- GS10.** maintain accurate project status updates
- GS11.** communicate effectively with technical and non-technical stakeholders
- GS12.** prepare technical reports and presentations
- GS13.** use measurement tools to verify RF parameters
- GS14.** follow safety guidelines during site work
- GS15.** manage time efficiently across multiple deployment tasks
- GS16.** read and interpret regulatory guidelines
- GS17.** handle vendor coordination and procurement follow-ups
- GS18.** provide knowledge transfer to O&M teams post-deployment
- GS19.** document lessons learned for future projects
- GS20.** stay updated with latest 5G deployment best practices

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Define 5G network standards and architecture</i>	6	10	-	3
PC1. review 5G technology standards and regulatory requirements	1	2	-	1
PC2. define architecture for RAN, transport, and core layers	1	2	-	1
PC3. document hardware and software specifications	1	2	-	-
PC4. ensure architecture meets capacity, latency, and coverage objectives	1	1	-	-
PC5. validate design against vendor capabilities and compatibility	1	1	-	-
PC6. obtain approvals from relevant stakeholders for final architecture	1	2	-	1
<i>Prepare hardware for installation</i>	6	10	-	1
PC7. inspect 5G hardware for physical damage or missing components	1	2	-	-
PC8. verify hardware specifications against design requirements	1	2	-	-
PC9. ensure availability of installation tools and accessories	1	1	-	1
PC10. check firmware versions and update where necessary	1	2	-	-
PC11. label hardware components as per site layout plan	1	2	-	-
PC12. ensure proper storage and handling to avoid equipment damage	1	1	-	-
<i>Design spectrum and network configuration</i>	6	9	-	2
PC13. analyse spectrum allocation and availability	1	1	-	-
PC14. plan frequency reuse and channel bandwidths to optimise coverage	1	1	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. assign carrier aggregation and MIMO configurations	1	2	-	1
PC16. coordinate with RF team for link budget calculations	1	2	-	-
PC17. ensure compliance with spectrum usage guidelines and licensing norms	1	1	-	1
PC18. simulate network performance under different load conditions	1	2	-	-
<i>Implement 5G NR and radio access</i>	6	10	-	8
PC19. install and integrate gNodeB and associated components	1	2	-	3
PC20. connect power, backhaul, and fronthaul links as per standards	1	2	-	1
PC21. configure site parameters including PCI, TAC, and bandwidth	1	2	-	1
PC22. run initial commissioning scripts and verify status	1	2	-	1
PC23. conduct test calls and data sessions to validate performance	1	1	-	1
PC24. resolve any alarms or integration issues before handover	1	1	-	1
<i>Document and hand over implementation</i>	6	11	-	6
PC25. maintain records of site configuration, test results, and acceptance certificates	1	2	-	1
PC26. provide training to operations teams on site-specific configurations	1	2	-	1
PC27. update network inventory with newly implemented sites	1	2	-	1
PC28. prepare final implementation report for project closure	1	2	-	1
PC29. ensure all work meets operator and regulatory quality standards	1	1	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC30. close project tasks in coordination with the project manager	1	2	-	1
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N4146
NOS Name	Set Standards, Prepare Hardware, and Implement 5G Network
Sector	Telecom
Sub-Sector	
Occupation	Operations and Maintenance - Passive Infrastructure
NSQF Level	4
Credits	8
Version	1.0
Next Review Date	NA

TEL/N6287: Operational Skills

Description

This NOS organisational protocols for communication, coordinating with team members, resolving conflicts, and interacting inclusively with customers, colleagues, and persons with disabilities.

Scope

The scope covers the following :

- Communicate effectively with customers, supervisors, and team members to ensure smooth operations.
- Resolve workplace issues and maintain professional relationships.
- Interact sensitively with persons of different genders and persons with disabilities (PwD).

Elements and Performance Criteria

Communicate with customers

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

- PC1.** identify the purpose and audience for each communication
- PC2.** select the appropriate medium (verbal, written, electronic) for communication
- PC3.** prepare clear and concise messages tailored to the audience
- PC4.** review communication materials for accuracy and professionalism
- PC5.** maintain records of important communications for reference

Communicate with customers

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

- PC6.** greet customers politely and introduce self and organisation
- PC7.** listen actively to customer queries and confirm understanding
- PC8.** provide accurate information on services, procedures, and timelines
- PC9.** respond to customer concerns with empathy and professionalism
- PC10.** maintain confidentiality of customer information
- PC11.** follow up with customers to confirm resolution of issues

Coordinate with team members and supervisors

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

- PC12.** share relevant updates and reports with team members in a timely manner
- PC13.** clarify work instructions and seek guidance when needed
- PC14.** participate actively in team meetings and discussions
- PC15.** provide constructive feedback to peers and accept feedback gracefully
- PC16.** resolve minor conflicts at the workplace through discussion and compromise
- PC17.** escalate unresolved issues to supervisors as per protocol

Engage with external stakeholders

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

- PC18.** coordinate with vendors, contractors, and service partners

- PC19.** exchange technical and logistical information clearly and accurately
- PC20.** follow organisational guidelines for contractual or legal communications
- PC21.** represent the organisation professionally during external meetings
- PC22.** maintain transparency in sharing project progress and challenges

Use inclusive and culturally sensitive communication

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

- PC23.** respect cultural, linguistic, and gender diversity in interactions
- PC24.** adapt communication style to accommodate persons with disabilities
- PC25.** avoid discriminatory language and maintain a respectful tone
- PC26.** use simple and clear language when explaining technical matters to non-technical audiences
- PC27.** confirm mutual understanding before closing discussions
- PC28.** encourage open and inclusive participation in group discussions

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** workplace safety and health policies of the organisation.
- KU2.** resource conservation policies and environmental guidelines.
- KU3.** standard reporting procedures for hazards and safety violations.
- KU4.** types of PPE and their correct usage.
- KU5.** safe handling techniques for tools, equipment, and hazardous materials.
- KU6.** basic fire safety and first-aid procedures.
- KU7.** methods for waste segregation and disposal.
- KU8.** common workplace hazards in telecom field operations.
- KU9.** procedures for sanitisation and disinfection of workplace and tools.
- KU10.** steps for emergency evacuation and incident reporting.

Generic Skills (GS)

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

- GS1.** communicate safety-related information clearly to team members.
- GS2.** plan and organise work in line with safety priorities.
- GS3.** identify opportunities for resource optimisation.
- GS4.** use IT tools to report safety observations or hazards.
- GS5.** follow eco-friendly practices at the workplace.
- GS6.** maintain discipline and self-management in safety compliance.
- GS7.** adapt safety practices to various work environments (indoor, outdoor, hazardous).
- GS8.** collaborate with co-workers to ensure collective safety and hygiene.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate with customers</i>	5	10	-	6
PC1. identify the purpose and audience for each communication	1	2	-	2
PC2. select the appropriate medium (verbal, written, electronic) for communication	1	2	-	-
PC3. prepare clear and concise messages tailored to the audience	1	2	-	2
PC4. review communication materials for accuracy and professionalism	1	2	-	1
PC5. maintain records of important communications for reference	1	2	-	1
<i>Communicate with customers</i>	6	11	-	4
PC6. greet customers politely and introduce self and organisation	1	2	-	1
PC7. listen actively to customer queries and confirm understanding	1	2	-	1
PC8. provide accurate information on services, procedures, and timelines	1	2	-	-
PC9. respond to customer concerns with empathy and professionalism	1	1	-	1
PC10. maintain confidentiality of customer information	1	2	-	1
PC11. follow up with customers to confirm resolution of issues	1	2	-	-
<i>Coordinate with team members and supervisors</i>	6	8	-	1
PC12. share relevant updates and reports with team members in a timely manner	1	2	-	-
PC13. clarify work instructions and seek guidance when needed	1	2	-	-
PC14. participate actively in team meetings and discussions	1	1	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. provide constructive feedback to peers and accept feedback gracefully	1	1	-	1
PC16. resolve minor conflicts at the workplace through discussion and compromise	1	1	-	-
PC17. escalate unresolved issues to supervisors as per protocol	1	1	-	-
<i>Engage with external stakeholders</i>	6	9	-	6
PC18. coordinate with vendors, contractors, and service partners	1	2	-	1
PC19. exchange technical and logistical information clearly and accurately	1	2	-	1
PC20. follow organisational guidelines for contractual or legal communications	1	2	-	1
PC21. represent the organisation professionally during external meetings	1	1	-	1
PC22. maintain transparency in sharing project progress and challenges	2	2	-	2
<i>Use inclusive and culturally sensitive communication</i>	7	12	-	3
PC23. respect cultural, linguistic, and gender diversity in interactions	1	2	-	1
PC24. adapt communication style to accommodate persons with disabilities	1	2	-	2
PC25. avoid discriminatory language and maintain a respectful tone	2	2	-	-
PC26. use simple and clear language when explaining technical matters to non-technical audiences	1	2	-	-
PC27. confirm mutual understanding before closing discussions	1	2	-	-
PC28. encourage open and inclusive participation in group discussions	1	2	-	-
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N6287
NOS Name	Operational Skills
Sector	Telecom
Sub-Sector	
Occupation	Network Operation and Maintenance
NSQF Level	4
Credits	0.5
Version	1.0
Next Review Date	NA

TEL/N6285: Maintain Workplace Safety, Resource Optimization, and Hygiene Standards

Description

This NOS workplace safety practices, using personal protective equipment (PPE), optimising the use of resources, and maintaining workplace hygiene. Includes waste segregation, disposal, and adherence to environmental norms.

Scope

The scope covers the following :

- Plan and organise work to ensure compliance with safety, health, and environmental standards.
- Optimise the use of resources at the workplace.
- Maintain personal hygiene, workplace cleanliness, and waste management in line with organisational and statutory requirements.

Elements and Performance Criteria

Plan work effectively and optimise resources

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

- PC1.** prepare a time schedule for tasks to meet given deadlines.
- PC2.** identify materials, tools, and equipment required for the assigned job.
- PC3.** use materials, tools, and equipment efficiently to minimise wastage.
- PC4.** follow organisational practices to optimise energy, water, and other resources.

Maintain safety standards

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

- PC5.** identify potential hazards at the workplace and report them to the supervisor.
- PC6.** use appropriate personal protective equipment (PPE) such as gloves, goggles, helmets, and safety shoes.
- PC7.** follow safe postures and handling techniques while working with tools and hazardous materials.
- PC8.** participate in safety drills, fire safety workshops, and first-aid sessions.
- PC9.** demonstrate safe evacuation procedures in case of an emergency.

Maintain hygiene and waste management

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

- PC10.** keep the workplace clean, organised, and free from obstacles.
- PC11.** follow basic hygiene practices such as handwashing, use of sanitiser, and personal cleanliness.
- PC12.** segregate waste into recyclable and non-recyclable categories using appropriate bins.
- PC13.** dispose of hazardous and non-hazardous waste as per environmental norms.
- PC14.** report any breaches in organisational hygiene or sanitation guidelines.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** workplace safety and health policies of the organisation.
- KU2.** resource conservation policies and environmental guidelines.
- KU3.** standard reporting procedures for hazards and safety violations.
- KU4.** types of PPE and their correct usage.
- KU5.** safe handling techniques for tools, equipment, and hazardous materials.
- KU6.** basic fire safety and first-aid procedures.
- KU7.** methods for waste segregation and disposal.
- KU8.** common workplace hazards in telecom field operations.
- KU9.** procedures for sanitisation and disinfection of workplace and tools.
- KU10.** steps for emergency evacuation and incident reporting.

Generic Skills (GS)

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

- GS1.** communicate safety-related information clearly to team members.
- GS2.** plan and organise work in line with safety priorities.
- GS3.** identify opportunities for resource optimisation.
- GS4.** use IT tools to report safety observations or hazards.
- GS5.** follow eco-friendly practices at the workplace.
- GS6.** maintain discipline and self-management in safety compliance.
- GS7.** adapt safety practices to various work environments (indoor, outdoor, hazardous).
- GS8.** collaborate with co-workers to ensure collective safety and hygiene.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan work effectively and optimise resources</i>	9	14	-	4
PC1. prepare a time schedule for tasks to meet given deadlines.	3	4	-	1
PC2. identify materials, tools, and equipment required for the assigned job.	2	4	-	1
PC3. use materials, tools, and equipment efficiently to minimise wastage.	2	3	-	1
PC4. follow organisational practices to optimise energy, water, and other resources.	2	3	-	1
<i>Maintain safety standards</i>	10	17	-	9
PC5. identify potential hazards at the workplace and report them to the supervisor.	2	4	-	1
PC6. use appropriate personal protective equipment (PPE) such as gloves, goggles, helmets, and safety shoes.	2	4	-	3
PC7. follow safe postures and handling techniques while working with tools and hazardous materials.	2	3	-	3
PC8. participate in safety drills, fire safety workshops, and first-aid sessions.	2	3	-	1
PC9. demonstrate safe evacuation procedures in case of an emergency.	2	3	-	1
<i>Maintain hygiene and waste management</i>	11	19	-	7
PC10. keep the workplace clean, organised, and free from obstacles.	2	4	-	1
PC11. follow basic hygiene practices such as handwashing, use of sanitiser, and personal cleanliness.	2	4	-	1
PC12. segregate waste into recyclable and non-recyclable categories using appropriate bins.	2	4	-	1
PC13. dispose of hazardous and non-hazardous waste as per environmental norms.	2	3	-	2

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. report any breaches in organisational hygiene or sanitation guidelines.	3	4	-	2
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N6285
NOS Name	Maintain Workplace Safety, Resource Optimization, and Hygiene Standards
Sector	Telecom
Sub-Sector	
Occupation	Network Operation and Maintenance
NSQF Level	4
Credits	0.5
Version	1.0
Next Review Date	NA

DGT/VSQ/N0101: Employability Skills (30 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
- 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. understand the significance of employability skills in meeting the job requirements

Constitutional values – Citizenship

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

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

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

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

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

PC4. speak with others using some basic English phrases or sentences

Communication Skills

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

PC5. follow good manners while communicating with others

PC6. work with others in a team

Diversity & Inclusion

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

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

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

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

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

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

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

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

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

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

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 basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services

KU10. how to compute income and expenses

KU11. importance of maintaining safety and security in financial transactions

- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-
PC10. calculate income, expenses, savings etc.	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each 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 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 this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 50% of aggregate marks to successfully clear the assessment.

7. In case of unsuccessful completion, the trainee may seek reassessment on the 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/N4147.Perform Base Station System Support Operations	30	50	-	20	100	25
TEL/N4144.Analyse Performance Reports and Conduct Network Optimisation	30	50	-	20	100	25
TEL/N4145.Integrate and Configure 5G Network Systems	30	50	-	20	100	20
TEL/N4146.Set Standards, Prepare Hardware, and Implement 5G Network	30	50	-	20	100	15
TEL/N6287.Operational Skills	30	50	-	20	100	5
TEL/N6285.Maintain Workplace Safety, Resource Optimization, and Hygiene Standards	30	50	-	20	100	5
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	5
Total	200	330	-	120	650	100

Acronyms

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

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.
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.