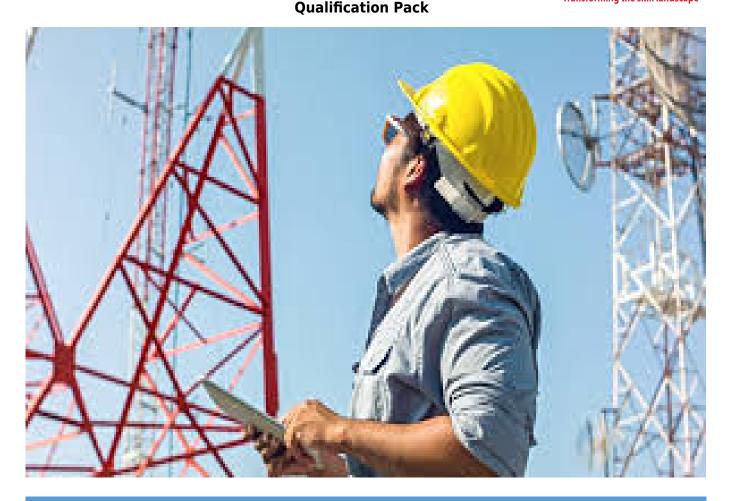


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#### N·S·D·C National Skill Development Corporation

Transforming the skill landscape



# **Tower Technician**

QP Code: TEL/Q4100

Version: 4.0

NSQF Level: 4

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



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# **TEL/Q4100: Tower Technician**

# **Brief Job Description**

The individual at work maintains the tower site live at all times, repair level-1 faults, carry out corrective/preventive maintenance at the telecom tower site and report issues to the supervisor. The individual also conducts energy management, estate management-level 1 and verify the assets.

### **Personal Attributes**

This job requires the individual to be action-oriented, self-disciplined, effective communicator and a team player with strong analytical and problem-solving skills. The person should be capable of working during odd hours under high pressure situations and willing to travel inter-state, when required.

# **Applicable National Occupational Standards (NOS)**

### **Compulsory NOS:**

- 1. TEL/N4138: Maintain Tower Site and Report Periodically
- 2. TEL/N4139: Manage site operation safely and hygienically
- 3. TEL/N9101: Organize Work and Resources as per Health and Safety Standards
- 4. TEL/N9102: Interact Effectively with Team Members and Customers
- 5. DGT/VSQ/N0102: Employability Skills (60 Hours)

# **Qualification Pack (QP) Parameters**

Sector	Telecom
Sub-Sector	Passive Infrastructure
Occupation	Operations and Maintenance - Passive Infrastructure
Country	India
NSQF Level	4
Credits	18
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7422.3001







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 with minimum education as 5th Grade pass) with 2 Years of experience
Minimum Level of Education for Training in School	10th Class
Pre-Requisite License or Training	NA
Minimum Job Entry Age	17 Years
Last Reviewed On	NA
Next Review Date	30/12/2024
NSQC Approval Date	30/12/2021
Version	4.0
Reference code on NQR	2022/TEL/TSSC/07007
NQR Version	2







# TEL/N4138: Maintain Tower Site and Report Periodically

# Description

This OS unit is about performing regular preventive and corrective maintenance activities at the tower and reporting to the superiors on a day to day basis.

# Scope

The scope covers the following :

- Perform preventive maintenance activities at the tower site
- Perform corrective maintenance of equipment
- Create and submit reports

# **Elements and Performance Criteria**

### Perform preventive maintenance activities at the tower site

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

- PC1. interpret PM (Preventive Maintenance) plan for proper execution
- PC2. comply with preventive maintenance schedule
- PC3. conduct site PM (Preventive Maintenance) as per standards
- PC4. maintain site up-time as per SLA
- PC5. check battery banks for faulty cells and replace as per guidelines
- PC6. check earthing system and fix the faults
- PC7. monitor site outages and link failures
- PC8. check premature ageing of Battery Bank, Diesel Generator, Air Conditioner, PIU and SMPS

#### Perform corrective maintenance of equipment

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

- **PC9.** identify the malfunction that require corrective maintenance
- PC10. perform fault analysis to identify and repair/replace components which may lead to a fault
- PC11. diagnose reasons of downtime through uptime analysis
- PC12. repair recurring faults on sites

### Create and submit reports

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

- **PC13.** prepare preventive and corrective maintenance checklists and reports
- PC14. record activities like diesel filling, electricity bill and DG meter reading, etc.
- **PC15.** inform the supervisor regarding changes in the site, movement of any material or theft, if any
- PC16. escalate faults/issues observed at site to the supervisor in the prescribed format

# Knowledge and Understanding (KU)







The individual on the job needs to know and understand:

- KU1. PM (Preventive Maintenance) plans
- KU2. organizational norms for preventive and corrective maintenance
- KU3. repair and maintenance guidelines of the company
- KU4. reporting and documentation procedure of the organization
- **KU5.** site up-time targets set by the organization, to avoid penalties
- **KU6.** troubleshooting procedure for AC (Air Conditioner), DG (Diesel Generator), PIU (Power Interface unit), SMPS (Switched mode power supply), battery bank and shelter
- KU7. maintenance procedure of tools and mechanical equipment
- KU8. fault analysis and rectification process
- KU9. potential safety hazards at the workplace
- KU10. health and safety procedures as per organizational policy
- KU11. usage of computer for reporting purposes
- KU12. working of all system components
- KU13. purpose and usage of tools and equipment for system repairs
- KU14. components of technical content and drawing

# **Generic Skills (GS)**

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

- **GS1.** read and comprehend company policies and guidelines to conduct timely preventive maintenance activities and instructions mentioned on the equipment for proper handling maintenance etc.
- GS2. fill up standard technical forms and activity logs
- GS3. maintain proper records in the prescribed format
- GS4. write basic reports as per specified format
- GS5. prioritize preventive maintenance activities effectively
- GS6. communicate the issue/fault with complete details to the supervisor



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#### **Qualification Pack**

# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform preventive maintenance activities at the tower site</i>	15	25	-	10
<b>PC1.</b> interpret PM (Preventive Maintenance) plan for proper execution	2	1	-	1
<b>PC2.</b> comply with preventive maintenance schedule	2	1	-	1
<b>PC3.</b> conduct site PM (Preventive Maintenance) as per standards	2	2	-	1
PC4. maintain site up-time as per SLA	2	1	-	1
<b>PC5.</b> check battery banks for faulty cells and replace as per guidelines	2	5	-	1
<b>PC6.</b> check earthing system and fix the faults	2	5	-	1
PC7. monitor site outages and link failures	2	5	-	2
<b>PC8.</b> check premature ageing of Battery Bank, Diesel Generator, Air Conditioner, PIU and SMPS	1	5	-	2
Perform corrective maintenance of equipment	5	10	-	5
<b>PC9.</b> identify the malfunction that require corrective maintenance	2	3	-	1
<b>PC10.</b> perform fault analysis to identify and repair/replace components which may lead to a fault	1	2	-	1
<b>PC11.</b> diagnose reasons of downtime through uptime analysis	1	3	-	1
PC12. repair recurring faults on sites	1	2	-	2
Create and submit reports	10	15	-	5
<b>PC13.</b> prepare preventive and corrective maintenance checklists and reports	3	4	-	2
<b>PC14.</b> record activities like diesel filling, electricity bill and DG meter reading, etc.	2	4	-	1







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC15.</b> inform the supervisor regarding changes in the site, movement of any material or theft, if any	2	3	-	1
<b>PC16.</b> escalate faults/issues observed at site to the supervisor in the prescribed format	3	4	-	1
NOS Total	30	50	-	20







# **National Occupational Standards (NOS) Parameters**

NOS Code	TEL/N4138
NOS Name	Maintain Tower Site and Report Periodically
Sector	Telecom
Sub-Sector	Passive Infrastructure
Occupation	Operations and Maintenance - Passive Infrastructure
NSQF Level	4
Credits	6
Version	2.0
Last Reviewed Date	NA
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021







# TEL/N4139: Manage site operation safely and hygienically

# Description

This OS unit is about managing the site operations and maintaining safety and hygiene at the site for smooth functioning.

# Scope

The scope covers the following :

- Manage regular site upkeep
- Maintain safety and hygiene of the site
- Manage site administration

# **Elements and Performance Criteria**

### Manage regular site upkeep

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

- **PC1.** maintain all power equipment as per standards
- PC2. monitor all civil and mechanical installations at the site
- **PC3.** check the number of active alarms at the site
- PC4. attend alarms within the defined SLA
- PC5. identify faulty alarms and take corrective action
- PC6. monitor infrastructure sensors and surveillance cameras
- PC7. remove unwanted materials from site to keep the premises clutter free
- PC8. ensure proper cleanliness and housekeeping at telecom sites

### Maintain safety and hygiene of the site

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

- **PC9.** maintain site hygiene of AC, DG, PIU, SMPS and battery bank, as per organization norms
- PC10. check leakage, rattles and shakes at the tower site
- **PC11.** ensure proper installation of fire safety instruments as per standards
- PC12. inspect the site as per electrical safety norms
- PC13. ensure proper floor markings, shadow board display and labels at the site
- PC14. conduct work area audit as per company checklists
- PC15. maintain checklist of standards laid by the company

### Manage site administration

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

- PC16. ensure quality fuel is filled by the service providers
- PC17. monitor EB (Electricity Bill) reading against the reading on PIU
- PC18. collect and submit the EB at the office
- PC19. supervise and certify vendor for quality and timely completion







# Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. agreements signed by the company with respect to the site like rent agreement
- **KU2.** local legislations and administrative processes
- KU3. standard safety laws and procedures
- KU4. asset layout as per company standards
- KU5. basic layout of the tower site
- KU6. fundamentals and procedure of electrical wiring
- KU7. functioning of NOC (Network Operation Centre) /TOC (Telecom Operations Control)
- KU8. functioning of alarm box and the interface
- KU9. components and aspects of distribution panel
- KU10. usage, testing and repair procedure of the equipment
- KU11. process of collection and payment of EB (electricity bill)
- **KU12.** information gathering process regarding whereabouts of relevant EB (Electricity Board) offices & key EB personnel
- KU13. checklists for preventive maintenance and site hygiene
- KU14. operating procedure of various kinds of fire extinguishers
- KU15. calculation of energy cost and site uptime
- KU16. site upkeep standards as per company policies

# **Generic Skills (GS)**

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

- GS1. read processes and policies of the company
- GS2. comprehend relevant clauses in the agreements signed by the company
- GS3. liaise with officers of local administration, site owners and other stake holders
- GS4. fill up formats and checklists for safety guidelines and site hygiene
- GS5. communicate effectively with colleagues and supervisors
- GS6. prioritize activities to effectively manage the tower site
- GS7. solve day to day problems at a local level
- GS8. escalate issues that cannot be handled at a local level to the superiors
- **GS9.** prioritize daily activities for the upkeep of tower site



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#### **Qualification Pack**

# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Manage regular site upkeep	5	10	-	-
<b>PC1.</b> maintain all power equipment as per standards	1	1	-	-
<b>PC2.</b> monitor all civil and mechanical installations at the site	1	2	-	-
<b>PC3.</b> check the number of active alarms at the site	-	1	-	-
PC4. attend alarms within the defined SLA	1	1	-	-
<b>PC5.</b> identify faulty alarms and take corrective action	1	1	-	-
<b>PC6.</b> monitor infrastructure sensors and surveillance cameras	-	2	-	-
<b>PC7.</b> remove unwanted materials from site to keep the premises clutter free	-	1	-	-
<b>PC8.</b> ensure proper cleanliness and housekeeping at telecom sites	1	1	-	-
Maintain safety and hygiene of the site	15	15	-	5
<b>PC9.</b> maintain site hygiene of AC, DG, PIU, SMPS and battery bank, as per organization norms	3	5	-	1
<b>PC10.</b> check leakage, rattles and shakes at the tower site	2	1	-	1
<b>PC11.</b> ensure proper installation of fire safety instruments as per standards	2	1	-	1
<b>PC12.</b> inspect the site as per electrical safety norms	2	1	-	1
<b>PC13.</b> ensure proper floor markings, shadow board display and labels at the site	2	3	-	1
<b>PC14.</b> conduct work area audit as per company checklists	2	2	_	_







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC15.</b> maintain checklist of standards laid by the company	2	2	-	-
Manage site administration	20	20	-	10
<b>PC16.</b> ensure quality fuel is filled by the service providers	5	6	-	3
<b>PC17.</b> monitor EB (Electricity Bill) reading against the reading on PIU	5	4	-	3
PC18. collect and submit the EB at the office	5	5	-	2
<b>PC19.</b> supervise and certify vendor for quality and timely completion	5	5	-	2
NOS Total	40	45	-	15







# **National Occupational Standards (NOS) Parameters**

NOS Code	TEL/N4139
NOS Name	Manage site operation safely and hygienically
Sector	Telecom
Sub-Sector	Passive Infrastructure
Occupation	Operations and Maintenance - Passive Infrastructure
NSQF Level	4
Credits	7
Version	2.0
Last Reviewed Date	NA
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021







# TEL/N9101: Organize 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







- 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







- **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







# **Assessment Criteria**

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







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> participate regularly in fire drills or other safety related workshops organised by the company	1	3	-	-
<b>PC14.</b> 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	-	-
<b>PC15.</b> maintain appropriate posture while sitting/standing for long hours	1	1	-	-
<b>PC16.</b> handle heavy and hazardous materials with care, while maintaining appropriate posture	1	1	-	-
PC17. sanitize workstation and equipment regularly	1	2	-	-
<b>PC18.</b> clean hands with soap, alcohol-based sanitizer regularly	-	1	-	-
<b>PC19.</b> avoid contact with anyone suffering from communicable diseases and take necessary precautions	-	1	-	-
<b>PC20.</b> take safety precautions while travelling e.g. maintain 1m distance from others, sanitize hands regularly, wear masks, etc.	1	2	-	-
<b>PC21.</b> report hygiene and sanitation issues to appropriate authority	1	1	-	-
<b>PC22.</b> 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	-	_
Conserve material/energy/electricity	7	16	-	3
<b>PC23.</b> optimize usage of material including water in various tasks/activities/processes	1	2	-	-
<b>PC24.</b> use resources such as water, electricity and others responsibly	1	2	-	1
<b>PC25.</b> carry out routine cleaning of tools, machine and equipment	1	2	-	-







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







# **National Occupational Standards (NOS) Parameters**

NOS Code	TEL/N9101
NOS Name	Organize Work and Resources as per Health and Safety Standards
Sector	Telecom
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	1
Version	2.0
Last Reviewed Date	NA
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022







# **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)







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



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### **Qualification Pack**

# **Assessment Criteria**

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







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







# 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	1
Version	2.0
Last Reviewed Date	NA
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022







# 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:



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### **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.



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# **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







- 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







### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	1	1	-	-
<b>PC1.</b> identify employability skills required for jobs in various industries	-	-	-	-
<b>PC2.</b> identify and explore learning and employability portals	-	-	-	-
Constitutional values – Citizenship	1	1	-	-
<b>PC3.</b> 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	2	4	-	-
<b>PC5.</b> recognize the significance of 21st Century Skills for employment	-	-	-	-
<b>PC6.</b> 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	2	3	-	-
<b>PC7.</b> use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
<b>PC8.</b> read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
<b>PC9.</b> write short messages, notes, letters, e-mails etc. in English	-	-	-	-
Career Development & Goal Setting	1	2	-	-







Transforming the skill landscape

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







Transforming the skill landscape

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







# **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.







#### 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/N4138.Maintain Tower Site and Report Periodically	30	50	-	20	100	20
TEL/N4139.Manage site operation safely and hygienically	40	45	-	15	100	20
TEL/N9101.Organize Work and Resources as per Health and Safety Standards	30	60	-	10	100	20
TEL/N9102.Interact Effectively with Team Members and Customers	25	65	-	10	100	20
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	20
Total	145	250	-	55	450	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' $% \left( {{\left( {{{\left( {{{{\left( {{{{\left( {{{{\left( {{{{\left( {{{{}}}}}} \right)}}}}\right.}$	
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.