









Cluster Manager

QP Code: TEL/Q4102

Version: 3.0

NSQF Level: 6

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









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TEL/Q4102: Cluster Manager

Brief Job Description

The individual in this job is responsible for providing uninterrupted infrastructure services to operators in cluster, ensuring optimum utilization of resources and efficiency in reducing energy and other operational costs while maintaining high up-time per mobile tower. The individual also needs to assure adherence to compliance/performance parameters, technical and safety training of team and adopt a holistic technical approach towards the infrastructure at cell sites/mobile towers. In addition, the individual needs to supervise upgrading of sites and tracking of new sites in the cluster.

Personal Attributes

An individual in this job must have good communication and interpersonal skills in addition to being a team player, self-disciplined and action-orientated as the job requires coordination with technicians, vendors and other stakeholders. The individual should also possess analytical skills, problem solving ability and the ability to work under pressure. The individual should stay updated about the latest developments and new technologies used in the telecom sector.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

- 1. TEL/N4109: Manage repair, maintenance and service cost per site
- 2. <u>TEL/N4110</u>: Maintain Site up-time, Compliance and Quality Assurance
- 3. TEL/N9103: Implement Effective Interaction at workplace
- 4. TEL/N9104: Manage Work, Resources and Safety at workplace
- 5. DGT/VSQ/N0103: Employability Skills (90 Hours)

Qualification Pack (QP) Parameters

Sector	Telecom
Sub-Sector	Passive Infrastructure
Occupation	Operations and Maintenance - Passive Infrastructure
Country	India
NSQF Level	6









Credits	20
Aligned to NCO/ISCO/ISIC Code	NCO-2015/1330.0701
Minimum Educational Qualification & Experience	Pursuing first year of 2-year PG program after completing 3 year UG degree OR Pursuing 1st year of PG- Eng (diploma after 3-year UG degree) OR Completed 4 year UG program (in case of 4-year UG) OR Pursuing 4th year UG (in case of 4-year UG with honours/honours with research) (and continuing education with No Experience Required) OR Completed 3 year UG degree with 1 Year of experience OR Previous relevant Qualification of NSQF Level (5) with 3 Years of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Leadership Skills, Basic computer knowledge (MS Office, applications etc.)
Minimum Job Entry Age	23 Years
Last Reviewed On	NA
Next Review Date	30/12/2024
NSQC Approval Date	30/12/2021
Version	3.0
Reference code on NQR	QG-06-TL-00448-2023-V1.1-TSSC
NQR Version	1.1









TEL/N4109: Manage repair, maintenance and service cost per site

Description

This unit describes the knowledge, understanding and skills required of an individual to manage monthly repair and maintenance cost per site and avoid any penalty from mobile operator companies (OPCOs).

Scope

The scope covers the following:

- Manage monthly maintenance cost per site
- Manage monthly repair/replacement cost per site

Elements and Performance Criteria

Manage monthly maintenance cost per site

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

- **PC1.** analyse cost requirements and financial constraints
- PC2. co-ordinate with regional office to obtain monthly repair/maintenance budget per site
- **PC3.** validate monthly preventive maintenance report of vendors/technicians
- **PC4.** analyse the fuel and electricity prices to manage expenses accordingly
- **PC5.** allocate funds for maintenance cost (diesel consumption, DG running hours) and expenses (electricity bill) per site as per monthly budget
- **PC6.** plan implementation of initiatives/decisions to maintain site cost
- **PC7.** analyse and implement a plan, in coordination with central team, to reduce penalties from operating companies (OPCOs) levied on hub sites
- **PC8.** monitor site functioning and identify loopholes/malfunctions to improve cost and work efficiency
- **PC9.** coordinate with cluster in-charge for site requirements, cost efficiency, grievances, etc.
- **PC10.** collate customer data to identify potential customers and create new business opportunities
- **PC11.** co-ordinate with key stakeholders and channel partners to increase the business
- **PC12.** analyse strategies to reduce cost and improve efficiency of the site and communicate with the team for the same

Manage monthly repair/replacement cost per site

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

- **PC13.** co-ordinate with teams, functional, technical, back-end and sales, to obtain detailed reports on repair/replacement of site infrastructure
- PC14. develop robust reporting and data capturing formats to identify asset replacement
- PC15. analyse actual cost for repair vis-a-vis allocated monthly budget
- **PC16.** coordinate for extra budget per site, if required, by submitting the necessary documents
- **PC17.** validate and approve repair cost per site
- PC18. perform root cause analysis for reducing repair and maintenance cost per mobile tower









Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** monthly budget to repair and maintain hub sites
- **KU2.** operating company (OPCOs) policies and standards followed by the company for budgeting and cost
- **KU3.** organisational guidelines and code of conduct to maintain site cost
- **KU4.** latest passive infra technologies and equipment like DG, PIU, AC, SMPS, battery banks etc.
- **KU5.** energy related computations and new energy initiatives
- **KU6.** importance of assessing and managing expenses
- **KU7.** MSA and SLA legal implications, requirements, penalties etc.
- KU8. monetary penalty criteria w.r.t. SLAs to avoid fine
- KU9. grievances or issues related to maintenance of site
- **KU10.** navigation of intranet tools for obtaining repair requests and approval for budget
- **KU11.** data capturing formats
- KU12. cost calculations, formulas etc. typically used for managing cluster expenses on-site

Generic Skills (GS)

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

- **GS1.** identify ways to work in a cost effective manner
- **GS2.** interpret and prepare technical and financial documents
- **GS3.** identify the root cause of problems/issues and arrive at a suitable solution for them
- **GS4.** comply with legal norms
- **GS5.** handle teams effectively
- **GS6.** liaise with external stakeholders
- **GS7.** converse in regional dialect with vendors, Cluster In-Charge and technicians
- **GS8.** motivate and encourage team members to work effectively
- **GS9.** prioritise and execute tasks in a high-pressure environment
- **GS10.** adopt methodical and scientific approach to arrive at an optimum solution









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Manage monthly maintenance cost per site	30	30	-	7
PC1. analyse cost requirements and financial constraints	2	-	-	-
PC2. co-ordinate with regional office to obtain monthly repair/maintenance budget per site	2	5	-	2
PC3. validate monthly preventive maintenance report of vendors/technicians	4	5	-	2
PC4. analyse the fuel and electricity prices to manage expenses accordingly	2	-	-	-
PC5. allocate funds for maintenance cost (diesel consumption, DG running hours) and expenses (electricity bill) per site as per monthly budget	2	-	-	-
PC6. plan implementation of initiatives/decisions to maintain site cost	2	-	-	-
PC7. analyse and implement a plan, in coordination with central team, to reduce penalties from operating companies (OPCOs) levied on hub sites	4	5	-	1
PC8. monitor site functioning and identify loopholes/malfunctions to improve cost and work efficiency	2	5	-	1
PC9. coordinate with cluster in-charge for site requirements, cost efficiency, grievances, etc.	2	-	-	-
PC10. collate customer data to identify potential customers and create new business opportunities	2	5	-	-
PC11. co-ordinate with key stakeholders and channel partners to increase the business	2	-	-	-
PC12. analyse strategies to reduce cost and improve efficiency of the site and communicate with the team for the same	4	5	-	1
Manage monthly repair/replacement cost per site	20	10	-	3









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. co-ordinate with teams, functional, technical, back-end and sales, to obtain detailed reports on repair/replacement of site infrastructure	4	-	-	-
PC14. develop robust reporting and data capturing formats to identify asset replacement	3	-	-	-
PC15. analyse actual cost for repair vis-a-vis allocated monthly budget	4	5	-	1
PC16. coordinate for extra budget per site, if required, by submitting the necessary documents	3	-	-	-
PC17. validate and approve repair cost per site	2	-	-	-
PC18. perform root cause analysis for reducing repair and maintenance cost per mobile tower	4	5	-	2
NOS Total	50	40	-	10









National Occupational Standards (NOS) Parameters

NOS Code	TEL/N4109
NOS Name	Manage repair, maintenance and service cost per site
Sector	Telecom
Sub-Sector	Passive Infrastructure
Occupation	Operations and Maintenance - Passive Infrastructure
NSQF Level	6
Credits	7
Version	7.0
Last Reviewed Date	NA
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021









TEL/N4110: Maintain Site up-time, Compliance and Quality Assurance

Description

This OS unit describes the knowledge, understanding and skills required of an individual to maintain site up-time, review alarm functioning and assuring quality as well as compliance.

Scope

The scope covers the following:

- Maintain site up-time and alarm automation
- Quality assurance and site audit compliance

Elements and Performance Criteria

Maintain site up-time and alarm automation

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

- **PC1.** maintain site up-time according to the pre-defined Service Level Agreement (SLA) with the mobile operators
- **PC2.** analyse operators' issues through site audit and find alternatives
- **PC3.** design a plan to reduce outage of passive infrastructure/equipment based on outage history and current health of equipment
- **PC4.** resolve issues in alarm automation and analyse faults/errors to develop a proactive action for the future
- **PC5.** review site-wise alarm functioning report
- **PC6.** coordinate with estate and security team to prevent thefts and pilferages
- PC7. validate daily/weekly/monthly outage report received from all hub sites
- **PC8.** plan and organise site visits to audit timely supply of quality material

Quality assurance and site audit compliance

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

- **PC9.** analyse and update material requirement to Supply Chain Manager (SCM) based on the asset replacement requests sent by the Cluster In-Charge (CIs)
- **PC10.** raise purchase request (PR) for repairable assets and assure work order is released for the same
- **PC11.** coordinate with central team to get the health check-up done and strategize for quality audit assurance
- **PC12.** conduct periodic compliance audit of preventive maintenance carried out by vendor, technicians and Cluster In-Charge (CIs)
- **PC13.** perform root cause analysis (RCA) of the outage/breakdown based on the reports received from the sites
- **PC14.** analyse strategies and consult vendors to rectify reasons for site outage
- **PC15.** calculate periodic vendor rewards/penalties on the basis of penalty reports received from the sites









- **PC16.** analyse availability and possibilities for using alternate energy source such as solar energy for the site to emphasize on adopting environmental friendly resources
- **PC17.** plan to conserve energy and reduce pollution using alternate fuels such as Bio-fuel rather than diesel

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** operating companies' (OPCOs) policies and standards followed to maintain site up-time
- **KU2.** general engineering concepts involved in site maintenance and alarm automation
- **KU3.** pre-defined SLA to maintain site hygiene and up-time from all mobile operator
- **KU4.** site equipment operations and maintenance
- **KU5.** equipment technology/operations and system components/modules
- KU6. software and applications used for site maintenance, monitoring and alarm automation
- **KU7.** organisational guidelines for safety and security (especially theft on site)
- **KU8.** data regarding repairs undertaken, cost involved, prevailing costs etc.
- **KU9.** organisational norms and procedures for site visits
- KU10. SCM and CIs reporting hierarchy and structure
- KU11. formats for health status reports and efficient data capture/analysis
- **KU12.** monthly budget to get the health check-up done for all equipment
- **KU13.** organisational guidelines for quality assurance compliance parameters
- **KU14.** organisation's reward and recognition policies
- **KU15.** monetary/non-monetary penalties as per SLA to vendors
- **KU16.** alternate energy sources and their advantages
- **KU17.** alternate fuels, their production and consumption for cluster sites

Generic Skills (GS)

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

- **GS1.** analyse timelines and criticality of issues to take decisions accordingly
- **GS2.** use and maintain resources efficiently and effectively
- **GS3.** converse in regional dialect with vendors, CIs and technicians
- **GS4.** apply time management strategies to effectively schedule and plan work for oneself and team
- GS5. read and interpret reports and documents
- **GS6.** handle teams effectively
- **GS7.** liaise with external stakeholders
- **GS8.** identify a methodical and scientific approach to arrive at an optimum solution
- GS9. maintain healthy vendor relations









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintain site up-time and alarm automation	23	15	-	4
PC1. maintain site up-time according to the predefined Service Level Agreement (SLA) with the mobile operators	3	-	-	-
PC2. analyse operators' issues through site audit and find alternatives	2	2	-	-
PC3. design a plan to reduce outage of passive infrastructure/equipment based on outage history and current health of equipment	4	4	-	2
PC4. resolve issues in alarm automation and analyse faults/errors to develop a proactive action for the future	4	4	-	1
PC5. review site-wise alarm functioning report	2	-	-	-
PC6. coordinate with estate and security team to prevent thefts and pilferages	2	-	-	-
PC7. validate daily/weekly/monthly outage report received from all hub sites	2	5	-	1
PC8. plan and organise site visits to audit timely supply of quality material	4	-	-	-
Quality assurance and site audit compliance	27	25	-	6
PC9. analyse and update material requirement to Supply Chain Manager (SCM) based on the asset replacement requests sent by the Cluster In-Charge (CIs)	4	4	-	1
PC10. raise purchase request (PR) for repairable assets and assure work order is released for the same	3	5	-	1
PC11. coordinate with central team to get the health check-up done and strategize for quality audit assurance	5	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. conduct periodic compliance audit of preventive maintenance carried out by vendor, technicians and Cluster In-Charge (CIs)	5	4	-	1
PC13. perform root cause analysis (RCA) of the outage/breakdown based on the reports received from the sites	3	6	-	2
PC14. analyse strategies and consult vendors to rectify reasons for site outage	2	-	-	-
PC15. calculate periodic vendor rewards/penalties on the basis of penalty reports received from the sites	1	6	-	1
PC16. analyse availability and possibilities for using alternate energy source such as solar energy for the site to emphasize on adopting environmental friendly resources	2	-	-	-
PC17. plan to conserve energy and reduce pollution using alternate fuels such as Bio-fuel rather than diesel	2	-	-	-
NOS Total	50	40	-	10









National Occupational Standards (NOS) Parameters

NOS Code	TEL/N4110
NOS Name	Maintain Site up-time, Compliance and Quality Assurance
Sector	Telecom
Sub-Sector	Passive Infrastructure
Occupation	Operations and Maintenance - Passive Infrastructure
NSQF Level	6
Credits	7
Version	3.0
Last Reviewed Date	NA
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021









TEL/N9103: Implement Effective Interaction at workplace

Description

This OS unit is about communicating 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.** interpret work requirements from the superior and customers
- PC2. report any unforeseen disruptions or delays to superiors and/or concerned person
- **PC3.** achieve productivity and quality of work as per the company procedure

Interact effectively with colleagues and customers

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

- **PC4.** explain the work requirements and the scope of work to the team
- **PC5.** communicate information using different techniques such as face-to-face, telephonic and written means
- **PC6.** co-ordinate with team to integrate work as per requirements
- **PC7.** respect colleagues and customers and communicate taking care of their personal spaces
- **PC8.** find solutions to work related difficulties with mutual agreement with colleagues and customers
- **PC9.** resolve conflicts within the team at work to achieve smooth workflow
- **PC10.** motivate team members to put organizational goals over individual goals
- **PC11.** encourage the team to provide feedback on any issues facing them

Respect differences of gender and ability

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

- **PC12.** ensure personal behaviour of self and team is conducted taking gender and disability of the person into consideration
- PC13. demonstrate sensitivity towards gender and person with disability while communicating
- **PC14.** list the different types of disabilities with their respective issues
- PC15. provide help to PwD team members in overcoming any challenges faced in work
- **PC16.** use inclusive language irrespective of the disability and the gender of the person
- **PC17.** treat all colleagues and co-workers equally









PC18. respect personal space of colleagues and co-workers

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** importance of effective and different means of communication and establishing good working relationships with colleagues and superiors
- **KU2.** importance of helping colleagues with problems, in order to meet quality and time standards as a team
- **KU3.** different methods of communication
- **KU4.** different types of information that colleagues might need and the importance of providing this information in an appropriate manner
- **KU5.** helping colleagues with problems, in order to meet quality and time standards as a team
- **KU6.** organisation's policies and procedures for working with colleagues and superior
- **KU7.** implications of own work on the work and schedule of others
- **KU8.** importance of understanding consequences of gender based 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.** rights and duties at workplace with respect to PwD
- **KU13.** process of recruiting people for a particular job profile w.r.t PwD and gender
- **KU14.** 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.** complete written work with attention to detail and read instructions/guidelines/procedures
- **GS2.** listen effectively and orally communicate information
- **GS3.** ask for clarification and advice from the concerned person
- **GS4.** deliver consistent and reliable service to customers
- **GS5.** check that the work meets customer requirements
- **GS6.** practice and acceptance of gender and its concepts
- GS7. develop empathy across genders and towards PwD
- **GS8.** reflect on own gender identity, gender roles and PwD issues
- **GS9.** engage and participate in discussions to end gender and disability discrimination
- **GS10.** improve and modify work practices
- **GS11.** maintain positive and effective relationships with colleagues and customers
- **GS12.** evaluate the possible solution(s) to the problem









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Interact effectively with superiors	2	9	-	1
PC1. interpret work requirements from the superior and customers	1	2	-	-
PC2. report any unforeseen disruptions or delays to superiors and/or concerned person	1	2	-	1
PC3. achieve productivity and quality of work as per the company procedure	-	5	-	-
Interact effectively with colleagues and customers	13	27	-	5
PC4. explain the work requirements and the scope of work to the team	2	3	-	-
PC5. communicate information using different techniques such as face-to-face, telephonic and written means	2	4	-	1
PC6. co-ordinate with team to integrate work as per requirements	-	4	-	1
PC7. respect colleagues and customers and communicate taking care of their personal spaces	-	3	-	-
PC8. find solutions to work related difficulties with mutual agreement with colleagues and customers	3	3	-	-
PC9. resolve conflicts within the team at work to achieve smooth workflow	-	4	-	1
PC10. motivate team members to put organizational goals over individual goals	3	4	-	1
PC11. encourage the team to provide feedback on any issues facing them	3	2	-	1
Respect differences of gender and ability	15	24	-	4
PC12. ensure personal behaviour of self and team is conducted taking gender and disability of the person into consideration	2	4	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. demonstrate sensitivity towards gender and person with disability while communicating	2	3	-	1
PC14. list the different types of disabilities with their respective issues	2	3	-	1
PC15. provide help to PwD team members in overcoming any challenges faced in work	2	3	-	-
PC16. use inclusive language irrespective of the disability and the gender of the person	2	3	-	1
PC17. treat all colleagues and co-workers equally	2	3	-	-
PC18. respect personal space of colleagues and co-workers	3	5	-	1
NOS Total	30	60	-	10









National Occupational Standards (NOS) Parameters

NOS Code	TEL/N9103
NOS Name	Implement Effective Interaction at workplace
Sector	Telecom
Sub-Sector	Generic
Occupation	Generic
NSQF Level	5
Credits	1
Version	2.0
Last Reviewed Date	NA
Next Review Date	27/01/2025
NSQC Clearance Date	27/01/2022









TEL/N9104: Manage Work, Resources and Safety at workplace

Description

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

Scope

The scope covers the following:

- Manage learning and self-direction
- Develop critical thinking and problem solving
- Perform work as per quality standards
- Maintain safe and secure working environment
- Comply with material / energy / electricity conservation practices

Elements and Performance Criteria

Manage learning and self-direction

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

- **PC1.** develop technical and personal skills to be updated with new technologies prevalent in the industry
- **PC2.** train the team such that they are able to adapt latest products/services in their working environment
- **PC3.** identify opportunities for team building workshops and motivational trainings

Develop critical thinking and problem solving

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

- **PC4.** guide the team to be accountable for timely completion of tasks
- **PC5.** analyse problems accurately to be able to correctly suggest suitable solutions to the concerned persons
- **PC6.** train the team to estimate the cause of the problem and validate

Perform work as per quality standards

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

- **PC7.** implement ways to keep immediate as well as team's work area clean and tidy
- **PC8.** maintain efficiency and productivity while performing role/responsibility
- **PC9.** supervise the team to ensure that the work is done as per the assigned and agreed requirements
- **PC10.** create schedules and rosters for the team to ensure they understand individual work requirements

Maintain safe and secure working environment

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

PC11. identify organisation's health, safety, security policies and procedures









- **PC12.** instruct team to report any identified breaches in health, safety, and security policies and procedures to the designated person
- **PC13.** manage 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
- **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

Material / energy / electricity conservation practices

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

- **PC15.** implement ways to optimize usage of material including water in various tasks/activities/processes
- **PC16.** supervise the team to ensure responsible use of resources
- **PC17.** motivate the team to carry out routine cleaning of tools, machine and equipment
- **PC18.** guide the team to optimize use of electricity/energy in various tasks/activities/processes
- **PC19.** implement periodic checks of the functioning of the equipment/machine and rectify wherever required
- **PC20.** guide the team to report malfunctioning and lapses in maintenance of equipment
- **PC21.** implement ways to use electrical equipment and appliances properly

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** strategies pertinent to the field that can be used to pursue an advancement of 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.** layout of the workstation and equipment used
- **KU7.** escalation matrix and its importance, especially in case of emergencies
- **KU8.** ways of time and cost management
- **KU9.** rules/regulation for maintaining health and safety at workplace
- **KU10.** meaning of hazard, different types of health and safety hazards found in the workplace, risks and threats based on the nature of work
- **KU11.** procedures to report breaches in health, safety and security
- **KU12.** ways of managing resources and material efficiently
- **KU13.** ways to recognize common electrical problems and common practices of conserving electricity

Generic Skills (GS)

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

GS1. explore various pathways to expand one's own learning skills and abilities









- **GS2.** analyse feedback for improving one's way of working
- **GS3.** interpret feedback from superiors in a constructive way
- **GS4.** identify the root cause of problems
- **GS5.** understand the problem by asking significant questions to clarify the various points of view on the problem
- **GS6.** seek clarifications from superior about the job requirement
- **GS7.** work in a team with full coordination of team members
- **GS8.** read instructions/guidelines and Standard Operating Practices (SOP) documents
- **GS9.** complete tasks efficiently and accurately within stipulated time
- **GS10.** record data in statutory documents relevant to safety and hygiene
- **GS11.** escalate/refer all anomalies to the concerned persons
- **GS12.** identify the most suitable course of action for completing the task using provided resources









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Manage learning and self-direction	4	5	-	-
PC1. develop technical and personal skills to be updated with new technologies prevalent in the industry	2	1	-	-
PC2. train the team such that they are able to adapt latest products/services in their working environment	1	2	-	-
PC3. identify opportunities for team building workshops and motivational trainings	1	2	-	-
Develop critical thinking and problem solving	4	7	-	-
PC4. guide the team to be accountable for timely completion of tasks	2	3	-	-
PC5. analyse problems accurately to be able to correctly suggest suitable solutions to the concerned persons	1	2	-	-
PC6. train the team to estimate the cause of the problem and validate	1	2	-	-
Perform work as per quality standards	5	9	-	4
PC7. implement ways to keep immediate as well as team's work area clean and tidy	1	2	-	-
PC8. maintain efficiency and productivity while performing role/responsibility	1	2	-	2
PC9. supervise the team to ensure that the work is done as per the assigned and agreed requirements	1	2	-	1
PC10. create schedules and rosters for the team to ensure they understand individual work requirements	2	3	-	1
Maintain safe and secure working environment	12	13	-	2
PC11. identify organisation's health, safety, security policies and procedures	3	3	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. instruct team to report any identified breaches in health, safety, and security policies and procedures to the designated person	3	3	-	-
PC13. manage 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	3	4	-	1
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	3	3	-	1
Material / energy / electricity conservation practices	15	16	-	4
PC15. implement ways to optimize usage of material including water in various tasks/activities/processes	1	2	-	1
PC16. supervise the team to ensure responsible use of resources	2	2	-	1
PC17. motivate the team to carry out routine cleaning of tools, machine and equipment	2	2	-	1
PC18. guide the team to optimize use of electricity/energy in various tasks/activities/processes	3	4	-	-
PC19. implement periodic checks of the functioning of the equipment/machine and rectify wherever required	2	2	-	1
PC20. guide the team to report malfunctioning and lapses in maintenance of equipment	3	2	-	-
PC21. implement ways to use electrical equipment and appliances properly	2	2	-	-
NOS Total	40	50	-	10









National Occupational Standards (NOS) Parameters

NOS Code	TEL/N9104
NOS Name	Manage Work, Resources and Safety at workplace
Sector	Telecom
Sub-Sector	Generic
Occupation	Generic
NSQF Level	5
Credits	1
Version	2.0
Last Reviewed Date	NA
Next Review Date	27/01/2025
NSQC Clearance Date	27/01/2022









DGT/VSQ/N0103: Employability Skills (90 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.** understand the significance of employability skills in meeting the current job market requirement and future of work
- **PC2.** identify and explore learning and employability relevant portals
- **PC3.** research about the different industries, job market trends, latest skills required and the available opportunities

Constitutional values - Citizenship

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

- **PC4.** 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.
- **PC5.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

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

PC6. recognize the significance of 21st Century Skills for employment









- **PC7.** 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
- **PC8.** adopt a continuous learning mindset for personal and professional development *Basic English Skills*

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

- **PC9.** use basic English for everyday conversation in different contexts, in person and over the telephone
- **PC10.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- **PC11.** 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:

- PC12. identify career goals based on the skills, interests, knowledge, and personal attributes
- PC13. prepare a career development plan with short- and long-term goals

Communication Skills

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

- **PC14.** follow verbal and non-verbal communication etiquette while communicating in professional and public settings
- **PC15.** use active listening techniques for effective communication
- **PC16.** communicate in writing using appropriate style and format based on formal or informal requirements
- **PC17.** work collaboratively with others in a team

Diversity & Inclusion

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

- PC18. communicate and behave appropriately with all genders and PwD
- **PC19.** 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:

- **PC20.** identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.
- **PC21.** carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook
- **PC22.** identify common components of salary and compute income, expenses, taxes, investments
- **PC23.** 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:

- **PC24.** operate digital devices and use their features and applications securely and safely
- **PC25.** carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.
- **PC26.** display responsible online behaviour while using various social media platforms









- PC27. create a personal email account, send and process received messages as per requirement
- **PC28.** carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications
- **PC29.** utilize virtual collaboration tools to work effectively

Entrepreneurship

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

- **PC30.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- **PC31.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- **PC32.** 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:

- PC33. identify different types of customers and ways to communicate with them
- PC34. identify and respond to customer requests and needs in a professional manner
- **PC35.** use appropriate tools to collect customer feedback
- **PC36.** follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

- **PC37.** create a professional Curriculum vitae (Résumé)
- **PC38.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
- **PC39.** apply to identified job openings using offline /online methods as per requirement
- **PC40.** answer questions politely, with clarity and confidence, during recruitment and selection
- **PC41.** 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.** components of salary and 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
- **KU16.** use applications such as word processors, spreadsheets etc.
- **KU17.** how to identify business opportunities
- **KU18.** types and needs of customers
- **KU19.** how to apply for a job and prepare for an interview
- **KU20.** 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 in English and other languages
- GS2. communicate effectively using appropriate language in formal and informal settings
- **GS3.** behave politely and appropriately with all to maintain effective work relationship
- **GS4.** how to work in a virtual mode, using various technological platforms
- **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	-	-
PC1. understand the significance of employability skills in meeting the current job market requirement and future of work	-	-	-	-
PC2. identify and explore learning and employability relevant portals	-	-	-	-
PC3. research about the different industries, job market trends, latest skills required and the available opportunities	-	-	-	-
Constitutional values - Citizenship	1	1	-	-
PC4. 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.	-	-	-	-
PC5. follow environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	1	3	-	-
PC6. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC7. 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	-	-	-	-
PC8. adopt a continuous learning mindset for personal and professional development	-	-	-	-
Basic English Skills	3	4	-	-
PC9. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC11. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
Career Development & Goal Setting	1	2	-	-
PC12. identify career goals based on the skills, interests, knowledge, and personal attributes	-	-	-	-
PC13. prepare a career development plan with short- and long-term goals	-	-	-	-
Communication Skills	2	2	-	-
PC14. follow verbal and non-verbal communication etiquette while communicating in professional and public settings	-	-	-	-
PC15. use active listening techniques for effective communication	-	-	-	-
PC16. communicate in writing using appropriate style and format based on formal or informal requirements	-	-	-	-
PC17. work collaboratively with others in a team	-	-	-	-
Diversity & Inclusion	1	1	-	-
PC18. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC19. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
Financial and Legal Literacy	2	3	-	-
PC20. identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.	-	-	-	-
PC21. carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
Essential Digital Skills	3	5	-	-
PC24. operate digital devices and use their features and applications securely and safely	-	-	-	-
PC25. carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.	-	-	-	-
PC26. display responsible online behaviour while using various social media platforms	-	-	-	-
PC27. create a personal email account, send and process received messages as per requirement	-	-	-	-
PC28. carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications	-	-	-	-
PC29. utilize virtual collaboration tools to work effectively	-	-	-	-
Entrepreneurship	2	3	-	-
PC30. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC31. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC32. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
Customer Service	1	2	-	-
PC33. identify different types of customers and ways to communicate with them	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC34. identify and respond to customer requests and needs in a professional manner	-	-	-	-
PC35. use appropriate tools to collect customer feedback	-	-	-	-
PC36. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	2	3	-	-
PC37. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC38. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC39. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC40. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC41. 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/N0103
NOS Name	Employability Skills (90 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	5
Credits	3
Version	1.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

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/N4109.Manage repair, maintenance and service cost per site	50	40	-	10	100	25
TEL/N4110.Maintain Site uptime, Compliance and Quality Assurance	50	40	-	10	100	25
TEL/N9103.Implement Effective Interaction at workplace	30	60	-	10	100	20
TEL/N9104.Manage Work, Resources and Safety at workplace	40	50	-	10	100	20
DGT/VSQ/N0103.Employability Skills (90 Hours)	20	30	-	-	50	10
Total	190	220	-	40	450	100









Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
CI	Cluster In-charge
CIT	Central IT (Information Technology) Systems
DG	Diesel Generator
EHS	Environment Health and Safety
IM	Infra Manager
MTD	Month Till Date
NOC	Network Operations Centre
ОРСО	Operating Companies
PIU	Power Interface Unit
PIU	Project Implementation Unit
РМ	Preventive Maintenance
R&M	Repair and Maintenance
SLA	Service Level Agreement
SMPS	Switched mode power supply
TAT	Turn Around Time
тос	Tower Operating Center
ZOM	Zonal Operation Manager









SCM	Supply Chain Management
PR	Purchase Request









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.
Cell Site (Mobile Tower)	A cell site is a cellular telephone site where antennas and electronic communications equipment are placed, usually on a radio mast, tower or other high place, to create a cell (or adjacent cells) in a cellular network
MTD (Month till date)	Month-till-date (MTD) is a period starting at the beginning of the current month and ending at the current date. Month-till-date is used in many contexts, mainly for recording results of an activity in the time between a date (exclusive, since this day may not yet be complete) and the beginning of the current month
OPCO (Mobile Operator)	An abbreviation for operating company such as a mobile service provider. Opco is most often used to describe the main operating company that is involved in an opco/propco deal
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility
PIU (Power Interface Unit)	Power Interface Unit, which is commonly known as PIU, is the most modern electrical interface and control unit used for GSM / Telecom installation









PM (Preventive Maintenance)	The care and servicing by personnel for the purpose of maintaining equipment and facilities in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects
SLA (Service Level Agreement)	A service-level agreement (SLA) is a part of a service contract where a service is formally defined. In practice, the term SLA is sometimes used to refer to the contracted delivery time of the service or performance
Sub-functions	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function Sub-sector Service provider denotes or deals with all type of connections
TAT (Turn Around Time)	The time taken to resolve a request or a complaint of the mobile operator/customer
Telecom	Is a communication sector consisting of companies who provide telephonic communication facilities to the public
VAS (Value added service)	In the telecom industry, on a conceptual level, value-added services add value to the standard service offering, spurring the subscriber to use their phone more and allowing the operator to drive up their ARPU. For mobile phones, while technologies like SMS, MMS and data access were historically usually considered value-added services, but in recent years SMS, MMS and data access have more and more become core services, and VAS therefore has beginning to exclude those services
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry