

Qualification Pack



Cloud Computing - Jr. Analyst

QP Code: TEL/Q6215

Version: 2.0

NSQF Level: 4

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

Qualification Pack

Contents

TEL/Q6215: Cloud Computing - Jr. Analyst	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
TEL/N6247: Prepare for Software or Application Cloud Testing	5
TEL/N6248: Carry out Cloud Testing and Fix Identified Bugs and Defects	10
TEL/N9101: Organize Work and Resources as per Health and Safety Standards	18
TEL/N9102: Interact Effectively with Team Members and Customers	25
DGT/VSQ/N0102: Employability Skills (60 Hours)	30
Assessment Guidelines and Weightage	37
<i>Assessment Guidelines</i>	37
<i>Assessment Weightage</i>	38
Acronyms	39
Glossary	40

Qualification Pack

TEL/Q6215: Cloud Computing - Jr. Analyst

Brief Job Description

A Cloud Computing - Jr. Analyst is responsible for carrying out various tests on software and applications using cloud computing services to ensure that it meets the user requirements and functions as expected. The individual also coordinates the test preparation activities, fixes the identified bugs for optimum software/ application performance, and carries out documentation activities.

Personal Attributes

The individual must have attention to detail along with strong analytical and problem-solving skills. The person should have excellent verbal and written communication skills. The individual must be able to work for long durations with concentration. Excellent time management skills, interpersonal skills, and the ability to work in coordination with others are the other important requirements in this job role.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TEL/N6247: Prepare for Software or Application Cloud Testing](#)
2. [TEL/N6248: Carry out Cloud Testing and Fix Identified Bugs and Defects](#)
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	Network Managed Services
Occupation	Network Operation and Maintenance
Country	India
NSQF Level	4
Credits	17

Qualification Pack

Aligned to NCO/ISCO/ISIC Code	NCO-2015/1330.6215
Minimum Educational Qualification & Experience	<p>12th grade Pass OR Completed 2nd year of the 3-year diploma after 10 OR Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma (Pursuing 2nd year of 3-year regular Diploma (after 10th) OR 10th grade pass (with two years of any combination of NTC/NAC/CITS or equivalent) OR 8th grade pass with 2 year NTC plus 1 year NAC plus 1 year CITS OR 10th grade pass and pursuing continuous schooling (With No Experience required) OR Previous relevant Qualification of NSQF Level (3) with 3 Years of experience</p>
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	17 Years
Last Reviewed On	NA
Next Review Date	30/06/2025
NSQC Approval Date	30/06/2022
Version	2.0
Reference code on NQR	QG-04-TL-00468-2023-V1.1-TSSC
NQR Version	1.1

Qualification Pack

TEL/N6247: Prepare for Software or Application Cloud Testing

Description

This OS unit is about making the appropriate preparations for cloud testing of a software or application.

Scope

The scope covers the following :

- Determine the client requirements
- Plan cloud testing

Elements and Performance Criteria

Determine the client requirements

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

- PC1.** determine the client requirements by conducting the requirement study
- PC2.** prepare the functional documentation based on the requirement study

Plan cloud testing

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

- PC3.** identify the areas requiring automation testing or manual testing
- PC4.** identify the test scenarios
- PC5.** coordinate with the development team to develop frontend, backend and integration test cases according to the test scenarios
- PC6.** ensure the test cases are detailed, comprehensive and well-structured
- PC7.** perform mapping of requirement and test cases
- PC8.** coordinate with the relevant personnel for preparing the test environment and data
- PC9.** prepare the requirement traceability matrix
- PC10.** assist in the development of test procedures
- PC11.** prepare comprehensive test plans based on product requirements, including requirement traceability, schedules, etc.
- PC12.** identify data security risks associated with cloud testing and take appropriate preventive measures
- PC13.** carry out a thorough review of the test plans and scripts, and revise them as required
- PC14.** prepare the test plan document, including the schedules and coordinate with the relevant personnel for its approval

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** various cloud computing tools and applications such as data storage, servers, databases, networking, software, analytics, etc.

Qualification Pack

- KU2.** the benefits of cloud computing, such as lower operating costs, the ability to run the infrastructure more efficiently, easy data backup, efficient business continuity management, etc.
- KU3.** different types of cloud computing models, i.e. public cloud, private cloud, and hybrid cloud
- KU4.** different categories of cloud computing services, i.e. infrastructure as a service (IaaS), platform as a service (PaaS), server-less computing, and software as a service (SaaS)
- KU5.** cloud computing-related services, such as on-demand software services, audio and video streaming, data storage, backup, and recovery, etc.
- KU6.** the use of cloud-based testing labs, on-demand testing tools, and device clouds
- KU7.** the concept and process of service virtualization
- KU8.** the benefit of carrying out cloud testing on a high-speed network, such as the 5G network
- KU9.** the importance and process of carrying out requirement study to determine the client's requirements
- KU10.** the process of identifying the areas requiring automation testing or manual testing
- KU11.** the process of identifying different types of test scenarios in cloud computing
- KU12.** the importance and process of developing frontend, backend and integration test cases according to the test scenarios
- KU13.** the process of mapping the requirements with test cases
- KU14.** the process of preparing the test environment and data
- KU15.** the process of preparing the requirement traceability matrix
- KU16.** the process of developing the test procedures
- KU17.** the importance and process of preparing comprehensive test plans based on product requirements, including requirement traceability, schedules, etc
- KU18.** the importance and process of identifying data security risks associated with cloud testing and the appropriate preventive measures to be taken to prevent or mitigate them
- KU19.** the importance of reviewing the test plans and scripts thoroughly and revising them, as per the requirement
- KU20.** the process of preparing the test plan document getting it approved

Generic Skills (GS)

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

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

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Determine the client requirements</i>	5	8	-	1
PC1. determine the client requirements by conducting the requirement study	3	3	-	-
PC2. prepare the functional documentation based on the requirement study	2	5	-	1
<i>Plan cloud testing</i>	25	52	-	9
PC3. identify the areas requiring automation testing or manual testing	3	5	-	1
PC4. identify the test scenarios	2	2	-	1
PC5. coordinate with the development team to develop frontend, backend and integration test cases according to the test scenarios	2	6	-	1
PC6. ensure the test cases are detailed, comprehensive and well-structured	2	4	-	-
PC7. perform mapping of requirement and test cases	2	4	-	1
PC8. coordinate with the relevant personnel for preparing the test environment and data	2	4	-	1
PC9. prepare the requirement traceability matrix	2	3	-	-
PC10. assist in the development of test procedures	2	2	-	-
PC11. prepare comprehensive test plans based on product requirements, including requirement traceability, schedules, etc.	2	6	-	1
PC12. identify data security risks associated with cloud testing and take appropriate preventive measures	2	4	-	1
PC13. carry out a thorough review of the test plans and scripts, and revise them as required	2	5	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. prepare the test plan document, including the schedules and coordinate with the relevant personnel for its approval	2	7	-	1
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N6247
NOS Name	Prepare for Software or Application Cloud Testing
Sector	Telecom
Sub-Sector	Network Managed Services
Occupation	Network Operation and Maintenance
NSQF Level	4
Credits	6
Version	2.0
Last Reviewed Date	NA
Next Review Date	30/06/2025
NSQC Clearance Date	30/06/2022

Qualification Pack

TEL/N6248: Carry out Cloud Testing and Fix Identified Bugs and Defects

Description

This OS unit is about carrying out cloud testing of a software or application and taking appropriate measures after testing to fix the identified bugs and defects.

Scope

The scope covers the following :

- Carry out functional testing
- Carry out non-functional testing
- Fix the identified bugs and defects

Elements and Performance Criteria

Carry out functional testing

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

- PC1.** carry out multi-tenancy testing to ensure the software/application is able to support multiple users simultaneously, providing access and security control of data
- PC2.** ensure there are no issues in sharing the same program, resources, and database
- PC3.** ensure the cloud responds optimally to an increase or decrease in traffic or requests
- PC4.** check that response time and network latency meet the agreed thresholds while serving multiple users simultaneously
- PC5.** check the scalability of the software/ application and adherence to the applicable Service Level Agreements (SLAs)
- PC6.** perform the necessary security test to ensure all the sensitive information is protected against unauthorized access and privacy of authorized users is maintained
- PC7.** carry out data integrity test in the cloud system to ensure the data is not lost or modified by unauthorized users
- PC8.** ensure compliance with the data security, handling and retention standards applicable to different geographical locations
- PC9.** carry out an acceptance test to determine whether the software/ application meets the business requirement specifications and delivery criteria for end-users
- PC10.** analyze user stories and use cases/requirements for validity and feasibility

Carry out non-functional testing

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

- PC11.** carry out stress and load/performance testing to check the response time, maximum load, and other performance criteria
- PC12.** carry out endurance testing, accounting for memory leak issues, efficient error handling and recovery mechanism to ensure the software/application does not experience breakdowns
- PC13.** ensure high Mean Time Between Failures (MTBF) to software/application can work without downtime for a reasonable duration

Qualification Pack

- PC14.** carry out system verification test to ensure various modules of a particular function perform as intended
- PC15.** carry out interoperability test to check the flexibility of the software/application operability on different platforms and infrastructures without any issues
- PC16.** carry out availability testing to ensure the software/ application remains available 24/7 with the necessary mission-critical functions working simultaneously
- PC17.** carry out compatibility testing for various compatibility metrics, such as operating systems, browsers, firewalls, etc.
- PC18.** carry out negative testing to ensure the software/application able to get back to functioning appropriately following an error without manual intervention
- PC19.** check the communication between all the layers of the software/application, considering various scenarios and probabilities
- PC20.** perform testing of the Disaster Recovery (DR) process to check if the software/application experiences an error, and the recovery process takes place efficiently without any issues
- PC21.** perform testing and automation of 5G application software on cloud-native platform
- PC22.** identify, record, and document all bugs within the bug tracking software
- PC23.** use the test automation framework to automate test cases and enhance the test framework, as necessary

Fix the identified bugs and defects

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

- PC24.** determine the root cause for software/application issues
- PC25.** coordinate with the development team to resolve the identified defects, and debug software programs for databases, applications, tools, networks, etc.
- PC26.** perform thorough regression and ad hoc testing in all aspects of the software/application when bugs are resolved
- PC27.** perform thorough regression and ad hoc testing in all aspects of the software/application when bugs are resolved
- PC28.** ensure that the services provided by the software/application are consistent with its specifications
- PC29.** coordinate with the product management team to ensure appropriate test coverage and high quality of production in project delivery
- PC30.** carry out relevant documentation to report the test activities to the stakeholders
- PC31.** coordinate with the software design team to improve the software performance, maintainability, serviceability, and reliability

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the difference between functional and non-functional tests
- KU2.** The importance of carrying out various functional and non-functional tests for a software/application
- KU3.** the importance and process of determining whether to carry out requirement-based testing or business process-based testing

Qualification Pack

- KU4.** the process of conducting multi-tenancy test, stress and load/performance test, data integrity test, compatibility test, negative test, Disaster Recovery (DR) process test, endurance test, system verification test, acceptance test, interoperability availability test, etc.
- KU5.** the importance and process of checking the scalability of a software/ application
- KU6.** the necessary security tests to be conducted to ensure all the sensitive information is protected against unauthorized access and privacy of authorized users is maintained
- KU7.** the importance and process of checking communication between all the layers of the software/ application, considering various scenarios and probabilities
- KU8.** the importance of ensuring compliance with the data security, handling and retention standards applicable to different geographical locations
- KU9.** the importance of ensuring high Mean Time Between Failures (MTBF)
- KU10.** the importance and process of analyzing user stories and use cases/requirements for validity and feasibility
- KU11.** the process of performing testing and automation of 5G application software on cloud-native platform
- KU12.** the importance and process of identifying, recording, and documenting all bugs within a bug tracking software
- KU13.** the use of a test automation framework to automate test cases, and enhance the test framework, as necessary
- KU14.** the importance of detecting and tracking software/ application defects and inconsistencies during testing
- KU15.** the process of determining the root cause for software/application issues
- KU16.** the process of resolving various software/application defects, and debugging software programs for databases, applications, tools, networks, etc.
- KU17.** the process of performing thorough regression and ad hoc testing in all aspects of the software/application
- KU18.** the importance of ensuring that the services provided by the software/application are consistent with its specifications
- KU19.** the importance of ensuring appropriate test coverage and high quality of production project delivery
- KU20.** the relevant documentation to be completed to report the test activities to the stakeholders
- KU21.** the importance of ensuring the software/application performance, maintainability, serviceability, and reliability

Generic Skills (GS)

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

- GS1.** maintain work related records
- GS2.** read the relevant guides and literature to get the latest information about the field of work
- GS3.** communicate clearly and politely
- GS4.** listen attentively to understand the information/instructions being shared
- GS5.** plan and prioritize tasks to ensure timely completion



Qualification Pack

GS6. identify appropriate solutions to work related issues

GS7. take quick decisions in case of an emergency/accident

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out functional testing</i>	10	20	-	2
PC1. carry out multi-tenancy testing to ensure the software/application is able to support multiple users simultaneously, providing access and security control of data	1	2	-	1
PC2. ensure there are no issues in sharing the same program, resources, and database	1	2	-	-
PC3. ensure the cloud responds optimally to an increase or decrease in traffic or requests	1	2	-	-
PC4. check that response time and network latency meet the agreed thresholds while serving multiple users simultaneously	1	2	-	-
PC5. check the scalability of the software/ application and adherence to the applicable Service Level Agreements (SLAs)	1	2	-	-
PC6. perform the necessary security test to ensure all the sensitive information is protected against unauthorized access and privacy of authorized users is maintained	1	2	-	-
PC7. carry out data integrity test in the cloud system to ensure the data is not lost or modified by unauthorized users	1	2	-	-
PC8. ensure compliance with the data security, handling and retention standards applicable to different geographical locations	1	2	-	-
PC9. carry out an acceptance test to determine whether the software/ application meets the business requirement specifications and delivery criteria for end-users	1	2	-	1
PC10. analyze user stories and use cases/requirements for validity and feasibility	1	2	-	-
<i>Carry out non-functional testing</i>	14	26	-	6

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. carry out stress and load/performance testing to check the response time, maximum load, and other performance criteria	1	2	-	1
PC12. carry out endurance testing, accounting for memory leak issues, efficient error handling and recovery mechanism to ensure the software/application does not experience breakdowns	1	2	-	-
PC13. ensure high Mean Time Between Failures (MTBF) to software/application can work without downtime for a reasonable duration	1	2	-	-
PC14. carry out system verification test to ensure various modules of a particular function perform as intended	1	2	-	1
PC15. carry out interoperability test to check the flexibility of the software/application operability on different platforms and infrastructures without any issues	1	2	-	-
PC16. carry out availability testing to ensure the software/ application remains available 24/7 with the necessary mission-critical functions working simultaneously	1	2	-	1
PC17. carry out compatibility testing for various compatibility metrics, such as operating systems, browsers, firewalls, etc.	1	2	-	-
PC18. carry out negative testing to ensure the software/application able to get back to functioning appropriately following an error without manual intervention	1	2	-	1
PC19. check the communication between all the layers of the software/application, considering various scenarios and probabilities	2	2	-	-
PC20. perform testing of the Disaster Recovery (DR) process to check if the software/application experiences an error, and the recovery process takes place efficiently without any issues	1	2	-	1
PC21. perform testing and automation of 5G application software on cloud-native platform	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. identify, record, and document all bugs within the bug tracking software	1	2	-	-
PC23. use the test automation framework to automate test cases and enhance the test framework, as necessary	1	2	-	1
<i>Fix the identified bugs and defects</i>	6	14	-	2
PC24. determine the root cause for software/application issues	1	2	-	-
PC25. coordinate with the development team to resolve the identified defects, and debug software programs for databases, applications, tools, networks, etc.	1	2	-	1
PC26. perform thorough regression and ad hoc testing in all aspects of the software/application when bugs are resolved	1	2	-	-
PC27. perform thorough regression and ad hoc testing in all aspects of the software/application when bugs are resolved	1	2	-	1
PC28. ensure that the services provided by the software/application are consistent with its specifications	1	1	-	-
PC29. coordinate with the product management team to ensure appropriate test coverage and high quality of production in project delivery	-	2	-	-
PC30. carry out relevant documentation to report the test activities to the stakeholders	-	2	-	-
PC31. coordinate with the software design team to improve the software performance, maintainability, serviceability, and reliability	1	1	-	-
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N6248
NOS Name	Carry out Cloud Testing and Fix Identified Bugs and Defects
Sector	Telecom
Sub-Sector	Network Managed Services
Occupation	Network Operation and Maintenance
NSQF Level	4
Credits	6
Version	2.0
Last Reviewed Date	NA
Next Review Date	30/06/2025
NSQC Clearance Date	30/06/2022

Qualification Pack

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

Qualification Pack

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

Conserve material/energy/electricity

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

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

Use effective waste management/recycling practices

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

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

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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

Qualification Pack

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

Generic Skills (GS)

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

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

Qualification Pack

Assessment Criteria

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

Qualification Pack

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

Qualification Pack

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

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N9101
NOS Name	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	27/01/2025
NSQC Clearance Date	27/01/2022

Qualification Pack

TEL/N9102: Interact Effectively with Team Members and Customers

Description

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

Scope

The scope covers the following :

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

Elements and Performance Criteria

Interact effectively with superiors

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

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

Interact effectively with colleagues and customers

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

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

Respect differences of gender and ability

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

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

Knowledge and Understanding (KU)

Qualification Pack

The individual on the job needs to know and understand:

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

Generic Skills (GS)

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

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

Qualification Pack

Assessment Criteria

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

Qualification Pack

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

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TEL/N9102
NOS Name	Interact Effectively with Team Members and Customers
Sector	Telecom
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	1
Version	2.0
Last Reviewed Date	NA
Next Review Date	27/01/2025
NSQC Clearance Date	27/01/2022

Qualification Pack

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

Description

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

Scope

The scope covers the following :

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

Elements and Performance Criteria

Introduction to Employability Skills

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

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

Constitutional values - Citizenship

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

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

Becoming a Professional in the 21st Century

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

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

Basic English Skills

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

Qualification Pack

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

Career Development & Goal Setting

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

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

Communication Skills

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

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

Diversity & Inclusion

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

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

Financial and Legal Literacy

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

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

Essential Digital Skills

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

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

Entrepreneurship

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

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

Customer Service

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

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

Qualification Pack

PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC29. create a professional Curriculum vitae (Résumé)

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

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

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

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

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

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

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

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

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

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

KU11. how to compute income and expenditure

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

KU13. different legal rights and laws

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

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

KU16. how to identify business opportunities

KU17. types and needs of customers

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

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

Generic Skills (GS)

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

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

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



Qualification Pack

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

Qualification Pack

Assessment Criteria

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

Qualification Pack

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

Qualification Pack

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

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	NA
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2023

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

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

Qualification Pack

Minimum Aggregate Passing % at QP Level : 70

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

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TEL/N6247.Prepare for Software or Application Cloud Testing	30	60	-	10	100	25
TEL/N6248.Carry out Cloud Testing and Fix Identified Bugs and Defects	30	60	-	10	100	25
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	10
Total	135	275	-	40	450	100

Qualification Pack

Acronyms

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

Qualification Pack

Glossary

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

Qualification Pack

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