

## Qualification Pack



# IoT Technical Service Operator

QP Code: TEL/Q6214

Version: 3.0

NSQF Level: 3

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## Qualification Pack

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## Qualification Pack

### TEL/Q6214: IoT Technical Service Operator

#### Brief Job Description

IoT Technical Service Operators manage IoT systems and devices, ensuring seamless data collection, communication, and functionality. They use specialized platforms, diagnostic tools, and software to optimize system operations, prioritizing real-time data processing, energy efficiency, and secure communication.

#### Personal Attributes

An IoT Technical Service Operator must be physically fit, capable of long-term work, and possess strong analytical and problem-solving skills. They must also have effective team coordination, communication skills, and the ability to work independently.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [TEL/N6252: Carry out Troubleshooting for IoT Devices and Connectivity Issues](#)
2. [TEL/N6253: Assist in Providing IoT Solutions to Clients](#)
3. [TEL/N6254: Assist in Creating Smart Cities by Implementing Internet of Things \(IoT\) Solutions](#)
4. [TEL/N6255: Use Internet of Things \(IoT\) Technology in Agriculture](#)
5. [TEL/N9101: Organise Work and Resources as per Health and Safety Standards](#)
6. [TEL/N9102: Interact Effectively with Team Members and Customers](#)
7. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network Operation and Maintenance
<b>Country</b>	India
<b>NSQF Level</b>	3

## Qualification Pack

<b>Credits</b>	13
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/3114.6214
<b>Minimum Educational Qualification &amp; Experience</b>	10th grade pass OR 9th grade pass with 1 Year of experience Relevant Experience OR Previous relevant Qualification of NSQF Level 2.5 with 1.5 years of experience Relevant Experience OR Previous relevant Qualification of NSQF Level 2 with 3 Years of experience Relevant Experience
<b>Minimum Level of Education for Training in School</b>	9th Class
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	NA
<b>Next Review Date</b>	30/06/2028
<b>NSQC Approval Date</b>	19/08/2025
<b>Version</b>	3.0
<b>Reference code on NQR</b>	QG-03-TL-06067-2025-V2-TSSC
<b>NQR Version</b>	2

## Qualification Pack

# TEL/N6252: Carry out Troubleshooting for IoT Devices and Connectivity Issues

## Description

The OS outlines competencies to diagnose and resolve IoT device and connectivity issues, including identifying faults, applying troubleshooting techniques, and minimizing system downtime..

## Scope

The scope covers the following :

- Diagnose IoT Device Issues
- Troubleshoot Connectivity Problems
- Restore functionality through hardware/software fixes
- Document and escalate unresolved problems

## Elements and Performance Criteria

### *Diagnose IoT Device Issues*

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

- PC1.** assess symptoms of device malfunction, such as sensor errors, unresponsiveness, or erratic readings
- PC2.** check physical components for damage, loose connections, or environmental interference
- PC3.** test hardware functionality using diagnostic tools and built-in self-test (BIST) features
- PC4.** validate correct configuration settings such as device ID, thresholds, and sampling intervals

### *Troubleshoot Connectivity Problems*

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

- PC5.** identify network disconnection, bandwidth bottlenecks, or signal strength issues
- PC6.** verify network settings such as SSID, IP address, protocol, and firewall rules
- PC7.** reset or reconfigure the network interface on the IoT device
- PC8.** coordinate with IT/network teams to resolve router, gateway, or cloud server issues

### *Restore and Test Functionality*

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

- PC9.** apply firmware updates, patches, or rollbacks as needed
- PC10.** replace defective components or peripheral modules
- PC11.** test device functionality post-troubleshooting to ensure restored operation
- PC12.** document troubleshooting steps, outcomes, and future recommendations

### *Escalation and Support Communication*

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

- PC13.** escalate unresolved or complex issues to senior technicians or OEMs
- PC14.** provide detailed error reports with logs, screenshots, and device IDs
- PC15.** maintain clear communication with customers or stakeholders during issue resolution

## Qualification Pack

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** common causes of IoT device malfunction (hardware faults, power issues, sensor drift, etc.)
- KU2.** network troubleshooting concepts, including ping tests, traceroutes, and protocol-level debugging
- KU3.** types of communication failures and their indicators (Wi-Fi drops, gateway timeout, MQTT failure)
- KU4.** use of diagnostic tools and software for testing device performance
- KU5.** procedures for safe device reset, firmware flashing, and patch installation
- KU6.** escalation protocols and support documentation standards
- KU7.** risk of data loss or corruption during troubleshooting and mitigation practices
- KU8.** regulatory and safety standards related to electrical or network troubleshooting

### Generic Skills (GS)

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

- GS1.** think critically to identify root causes of errors
- GS2.** follow structured problem-solving approaches
- GS3.** communicate technical issues clearly to non-technical stakeholders
- GS4.** maintain detailed logs and documentation for future reference
- GS5.** use IoT diagnostic software, network analysis tools, and remote device managers
- GS6.** stay calm under pressure and ensure minimal downtime during failures
- GS7.** apply safety and data integrity protocols while troubleshooting electronic systems

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Diagnose IoT Device Issues</i>	<b>8</b>	<b>20</b>	-	<b>2</b>
<b>PC1.</b> assess symptoms of device malfunction, such as sensor errors, unresponsiveness, or erratic readings	2	5	-	1
<b>PC2.</b> check physical components for damage, loose connections, or environmental interference	2	5	-	-
<b>PC3.</b> test hardware functionality using diagnostic tools and built-in self-test (BIST) features	2	5	-	-
<b>PC4.</b> validate correct configuration settings such as device ID, thresholds, and sampling intervals	2	5	-	1
<i>Troubleshoot Connectivity Problems</i>	<b>8</b>	<b>15</b>	-	<b>3</b>
<b>PC5.</b> identify network disconnection, bandwidth bottlenecks, or signal strength issues	2	3	-	1
<b>PC6.</b> verify network settings such as SSID, IP address, protocol, and firewall rules	2	4	-	1
<b>PC7.</b> reset or reconfigure the network interface on the IoT device	2	5	-	-
<b>PC8.</b> coordinate with IT/network teams to resolve router, gateway, or cloud server issues	2	3	-	1
<i>Restore and Test Functionality</i>	<b>7</b>	<b>16</b>	-	<b>3</b>
<b>PC9.</b> apply firmware updates, patches, or rollbacks as needed	1	4	-	1
<b>PC10.</b> replace defective components or peripheral modules	2	4	-	1
<b>PC11.</b> test device functionality post-troubleshooting to ensure restored operation	2	5	-	-
<b>PC12.</b> document troubleshooting steps, outcomes, and future recommendations	2	3	-	1
<i>Escalation and Support Communication</i>	<b>7</b>	<b>9</b>	-	<b>2</b>

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> escalate unresolved or complex issues to senior technicians or OEMs	2	3	-	1
<b>PC14.</b> provide detailed error reports with logs, screenshots, and device IDs	3	3	-	-
<b>PC15.</b> maintain clear communication with customers or stakeholders during issue resolution	2	3	-	1
<b>NOS Total</b>	<b>30</b>	<b>60</b>	<b>-</b>	<b>10</b>



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N6252
<b>NOS Name</b>	Carry out Troubleshooting for IoT Devices and Connectivity Issues
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network Operation and Maintenance
<b>NSQF Level</b>	3
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	19/08/2025
<b>Next Review Date</b>	30/06/2028
<b>NSQC Clearance Date</b>	19/08/2025

## Qualification Pack

### TEL/N6253: Assist in Providing IoT Solutions to Clients

#### Description

The OS supports designing and deploying customized IoT solutions by understanding client needs, suggesting components, and assisting with integration and alignment to business goals.

#### Scope

The scope covers the following :

- Discuss client requirements and propose suitable IoT solutions
- Support solution design and component selection
- Assist in system integration and testing
- Document solution architecture and client feedback

#### Elements and Performance Criteria

##### *Discuss Client Requirements*

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

- PC1.** interact with clients to gather technical and functional requirements
- PC2.** document client needs related to data capture, monitoring, control, and reporting
- PC3.** analyze site or business constraints such as environment, scale, and connectivity

##### *Support IoT Solution Design*

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

- PC4.** suggest compatible IoT devices, sensors, and communication protocols for the given use case
- PC5.** assist in drafting the system architecture including cloud/edge components
- PC6.** recommend power, data, and network configurations suited to the operational environment
- PC7.** support estimation of resource and budget requirements for solution deployment

##### *Assist in System Integration and Testing*

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

- PC8.** help assemble and configure system components as per design
- PC9.** perform preliminary testing to validate device communication and data flow
- PC10.** assist in integrating APIs, dashboards, or cloud platforms as needed
- PC11.** troubleshoot and fix basic issues during setup and trial runs

##### *Document and Communicate Solution Details*

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

- PC12.** create basic documentation such as component lists, network diagrams, and configuration steps
- PC13.** maintain logs of client interactions and technical decisions taken
- PC14.** gather feedback from clients on performance during trial or pilot phases
- PC15.** communicate observations and suggestions to the design or product development team

## Qualification Pack

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** fundamentals of IoT solution architecture, including devices, gateways, and platforms
- KU2.** commonly used sensors, devices, and actuators in various IoT applications
- KU3.** basics of connectivity options (Wi-Fi, ZigBee, LoRa, NB-IoT, etc.)
- KU4.** power management and hardware deployment considerations
- KU5.** software components like IoT dashboards, data analytics platforms, and APIs
- KU6.** industry use cases of IoT in sectors like agriculture, manufacturing, smart homes, logistics, etc.
- KU7.** procedures for system testing, validation, and field trials
- KU8.** importance of user feedback and iterative improvement in solution design
- KU9.** standard formats for technical documentation and client reports

### Generic Skills (GS)

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

- GS1.** interact effectively with clients to understand and clarify technical needs
- GS2.** interact effectively with clients to understand and clarify technical needs
- GS3.** assist in drafting simple diagrams and technical documentation
- GS4.** test system functionality and troubleshoot minor errors
- GS5.** collaborate with technical teams and communicate field-level insights
- GS6.** organize and report customer feedback in a clear and structured manner
- GS7.** follow workflow, safety, and quality assurance protocols during deployment

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Discuss Client Requirements</i>	<b>6</b>	<b>12</b>	-	<b>2</b>
<b>PC1.</b> interact with clients to gather technical and functional requirements	2	4	-	1
<b>PC2.</b> document client needs related to data capture, monitoring, control, and reporting	2	4	-	-
<b>PC3.</b> analyze site or business constraints such as environment, scale, and connectivity	2	4	-	1
<i>Support IoT Solution Design</i>	<b>8</b>	<b>16</b>	-	<b>3</b>
<b>PC4.</b> suggest compatible IoT devices, sensors, and communication protocols for the given use case	2	4	-	1
<b>PC5.</b> assist in drafting the system architecture including cloud/edge components	2	4	-	1
<b>PC6.</b> recommend power, data, and network configurations suited to the operational environment	2	4	-	1
<b>PC7.</b> support estimation of resource and budget requirements for solution deployment	2	4	-	-
<i>Assist in System Integration and Testing</i>	<b>8</b>	<b>16</b>	-	<b>3</b>
<b>PC8.</b> help assemble and configure system components as per design	2	4	-	1
<b>PC9.</b> perform preliminary testing to validate device communication and data flow	2	4	-	1
<b>PC10.</b> assist in integrating APIs, dashboards, or cloud platforms as needed	2	4	-	-
<b>PC11.</b> troubleshoot and fix basic issues during setup and trial runs	2	4	-	1
<i>Document and Communicate Solution Details</i>	<b>8</b>	<b>16</b>	-	<b>2</b>
<b>PC12.</b> create basic documentation such as component lists, network diagrams, and configuration steps	2	4	-	1

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> maintain logs of client interactions and technical decisions taken	2	4	-	-
<b>PC14.</b> gather feedback from clients on performance during trial or pilot phases	2	4	-	-
<b>PC15.</b> communicate observations and suggestions to the design or product development team	2	4	-	1
<b>NOS Total</b>	<b>30</b>	<b>60</b>	<b>-</b>	<b>10</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N6253
<b>NOS Name</b>	Assist in Providing IoT Solutions to Clients
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network Operation and Maintenance
<b>NSQF Level</b>	3
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	19/08/2025
<b>Next Review Date</b>	30/06/2028
<b>NSQC Clearance Date</b>	19/08/2025

## Qualification Pack

# TEL/N6254: Assist in Creating Smart Cities by Implementing Internet of Things (IoT) Solutions

## Description

This OS supports developing and deploying IoT-based smart city solutions across infrastructure, healthcare, and transport through use case identification, system implementation, data flow, troubleshooting, and user support.

## Scope

The scope covers the following :

- Identify use cases for IoT-based smart city applications
- Assist in implementation of smart infrastructure
- Support monitoring, data handling, and issue resolution
- Collaborate with teams and stakeholders for integration and feedback

## Elements and Performance Criteria

### *Identify and Deploy IoT Solutions*

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

- PC1.** gather information on urban, transport, and healthcare challenges
- PC2.** identify and select appropriate IoT devices (e.g., smart meters, medical sensors, GPS trackers)
- PC3.** assess feasibility based on network availability, power supply, and site-specific factors
- PC4.** prepare and secure installation sites in public, medical, and transport environments
- PC5.** install, test, and calibrate IoT sensors and communication modules
- PC6.** configure devices for tracking, monitoring, alerts, and real-time data sharing
- PC7.** ensure proper network/cloud connectivity for centralized control and monitoring

### *Monitor Data and Ensure Transmission*

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

- PC8.** monitor device data (e.g., health vitals, traffic flow, waste levels, energy use) using dashboards and software
- PC9.** verify data is recorded accurately and transmitted securely to cloud or control centers
- PC10.** ensure real-time alerts are triggered when thresholds or anomalies occur
- PC11.** follow data privacy, encryption, and regulatory protocols (e.g., HIPAA, transport safety)

### *Maintain and Troubleshoot IoT Systems*

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

- PC12.** conduct regular checks on device status, battery life, firmware, and connectivity
- PC13.** identify and resolve issues like sensor failure, data gaps, or signal loss
- PC14.** update firmware/app configurations and maintain device version control
- PC15.** document and escalate unresolved technical issues to specialized teams

## Qualification Pack

### *Support Users and Stakeholders*

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

- PC16.** coordinate with municipal bodies, healthcare professionals, fleet managers, and vendors
- PC17.** train patients, drivers, and end-users in system usage and mobile/desktop interfaces
- PC18.** record installation details, user feedback, and incident reports
- PC19.** communicate insights from field data to stakeholders for performance improvement

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** concept of smart cities and integrated iot applications across domains
- KU2.** types, functions, and use cases of iot devices in health, transport, and urban infrastructure
- KU3.** basics of sensors, actuators, gateways, and cloud/edge architecture
- KU4.** communication protocols (e.g., lora, lte-m, nb-iot, wi-fi, gsm)
- KU5.** real-time monitoring platforms, dashboards, and analytics tools
- KU6.** privacy, safety, and hygiene protocols in healthcare and public deployments
- KU7.** troubleshooting and maintenance practices for outdoor and indoor iot systems
- KU8.** reporting, documentation, and stakeholder collaboration practices
- KU9.** feedback mechanisms from citizens, patients, and transport operators

### **Generic Skills (GS)**

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

- GS1.** read and interpret technical layouts, manuals, and data dashboards
- GS2.** follow standard procedures for safe installation in diverse environments
- GS3.** configure and test iot systems for connectivity and functionality
- GS4.** troubleshoot basic device and connectivity problems
- GS5.** maintain detailed logs and reports of field activities and issues
- GS6.** communicate technical concepts to non-technical users
- GS7.** use mobile apps, dashboards, and monitoring tools effectively
- GS8.** work collaboratively with stakeholders, vendors, and civic/medical staff



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify and Deploy IoT Solutions</i>	<b>17</b>	<b>18</b>	-	<b>3</b>
<b>PC1.</b> gather information on urban, transport, and healthcare challenges	-	2	-	-
<b>PC2.</b> identify and select appropriate IoT devices (e.g., smart meters, medical sensors, GPS trackers)	3	2	-	1
<b>PC3.</b> assess feasibility based on network availability, power supply, and site-specific factors	3	3	-	-
<b>PC4.</b> prepare and secure installation sites in public, medical, and transport environments	3	3	-	-
<b>PC5.</b> install, test, and calibrate IoT sensors and communication modules	3	3	-	-
<b>PC6.</b> configure devices for tracking, monitoring, alerts, and real-time data sharing	3	3	-	1
<b>PC7.</b> ensure proper network/cloud connectivity for centralized control and monitoring	2	2	-	1
<i>Monitor Data and Ensure Transmission</i>	<b>11</b>	<b>12</b>	-	<b>2</b>
<b>PC8.</b> monitor device data (e.g., health vitals, traffic flow, waste levels, energy use) using dashboards and software	2	3	-	-
<b>PC9.</b> verify data is recorded accurately and transmitted securely to cloud or control centers	3	3	-	1
<b>PC10.</b> ensure real-time alerts are triggered when thresholds or anomalies occur	3	3	-	-
<b>PC11.</b> follow data privacy, encryption, and regulatory protocols (e.g., HIPAA, transport safety)	3	3	-	1
<i>Maintain and Troubleshoot IoT Systems</i>	<b>7</b>	<b>10</b>	-	<b>2</b>
<b>PC12.</b> conduct regular checks on device status, battery life, firmware, and connectivity	1	3	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> identify and resolve issues like sensor failure, data gaps, or signal loss	3	2	-	1
<b>PC14.</b> update firmware/app configurations and maintain device version control	-	3	-	-
<b>PC15.</b> document and escalate unresolved technical issues to specialized teams	3	2	-	1
<i>Support Users and Stakeholders</i>	<b>5</b>	<b>10</b>	-	<b>3</b>
<b>PC16.</b> coordinate with municipal bodies, healthcare professionals, fleet managers, and vendors	2	2	-	1
<b>PC17.</b> train patients, drivers, and end-users in system usage and mobile/desktop interfaces	-	2	-	1
<b>PC18.</b> record installation details, user feedback, and incident reports	2	3	-	-
<b>PC19.</b> communicate insights from field data to stakeholders for performance improvement	1	3	-	1
<b>NOS Total</b>	<b>40</b>	<b>50</b>	-	<b>10</b>

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N6254
<b>NOS Name</b>	Assist in Creating Smart Cities by Implementing Internet of Things (IoT) Solutions
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network Operation and Maintenance
<b>NSQF Level</b>	3
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	19/08/2025
<b>Next Review Date</b>	30/06/2028
<b>NSQC Clearance Date</b>	19/08/2025

## Qualification Pack

### TEL/N6255: Use Internet of Things (IoT) Technology in Agriculture

#### Description

The OS defines deploying and managing IoT in agriculture to monitor, control, and improve farming using sensors, smart irrigation, and data-driven decisions for better productivity and efficiency.

#### Scope

The scope covers the following :

- Identify suitable IoT applications in agriculture
- Install and configure IoT devices in the field
- Monitor, maintain, and troubleshoot agriculture IoT systems
- Assist farmers and stakeholders with IoT usage and feedback

#### Elements and Performance Criteria

##### *Identify IoT Applications in Agriculture*

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

- PC1.** identify key agricultural activities that can benefit from IoT-based automation (e.g., irrigation, soil health, weather tracking)
- PC2.** assess the suitability of IoT sensors and devices based on crop type, farm size, and local conditions
- PC3.** suggest appropriate IoT solutions such as smart irrigation, greenhouse monitoring, livestock tracking, etc.

##### *Install and Configure Agricultural IoT Devices*

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

- PC4.** prepare agricultural land, polyhouses, or animal enclosures for IoT device installation
- PC5.** install and calibrate sensors for soil moisture, temperature, humidity, pH, etc.
- PC6.** connect devices to power sources, solar panels, or batteries as required
- PC7.** configure communication settings for seamless data transfer to mobile or cloud-based dashboards

##### *Monitor and Troubleshoot IoT Systems in Agriculture*

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

- PC8.** monitor real-time data collected by IoT devices and check for anomalies
- PC9.** diagnose device errors, network issues, or faulty sensor readings
- PC10.** perform routine maintenance of sensors and controllers as per guidelines
- PC11.** update firmware or software for agricultural IoT systems as needed

##### *Support Farmers and Agricultural Stakeholders*

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

- PC12.** train farmers on interpreting IoT data for better farming decisions
- PC13.** respond to user queries regarding device operation and troubleshooting
- PC14.** escalate technical issues to senior technicians when unresolved

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- PC15.** provide suggestions for optimizing water use, fertilizer application, or crop monitoring using IoT insights

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** fundamental concepts of precision agriculture and digital farming
- KU2.** types of sensors used in agriculture (e.g., soil moisture, leaf wetness, weather sensors)
- KU3.** wireless communication methods suitable for farm environments (LoRa, ZigBee, Wi-Fi, cellular, etc.)
- KU4.** solar-based power solutions and battery management for remote field devices
- KU5.** data analytics and dashboard interpretation for farm operations
- KU6.** crop-specific requirements and ideal environmental conditions
- KU7.** methods to integrate IoT with irrigation, fertilization, and pest control systems
- KU8.** safety precautions for installing electronic devices in wet or outdoor conditions
- KU9.** techniques for training and guiding farmers with limited digital literacy

### Generic Skills (GS)

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

- GS1.** follow standard protocols for device installation and soil handling
- GS2.** analyze sensor data to identify patterns or irregularities in farm conditions
- GS3.** communicate with farmers in a clear and practical manner
- GS4.** create and maintain installation and service reports for agricultural clients
- GS5.** collaborate with agronomists, local authorities, and vendors
- GS6.** use mobile apps and dashboards for configuring and monitoring field devices
- GS7.** adapt solutions based on seasonal changes or crop cycles

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify IoT Applications in Agriculture</i>	<b>11</b>	<b>9</b>	-	<b>2</b>
<b>PC1.</b> identify key agricultural activities that can benefit from IoT-based automation (e.g., irrigation, soil health, weather tracking)	4	3	-	1
<b>PC2.</b> assess the suitability of IoT sensors and devices based on crop type, farm size, and local conditions	3	4	-	-
<b>PC3.</b> suggest appropriate IoT solutions such as smart irrigation, greenhouse monitoring, livestock tracking, etc.	4	2	-	1
<i>Install and Configure Agricultural IoT Devices</i>	<b>11</b>	<b>15</b>	-	<b>2</b>
<b>PC4.</b> prepare agricultural land, polyhouses, or animal enclosures for IoT device installation	4	3	-	1
<b>PC5.</b> install and calibrate sensors for soil moisture, temperature, humidity, pH, etc.	3	4	-	-
<b>PC6.</b> connect devices to power sources, solar panels, or batteries as required	-	4	-	1
<b>PC7.</b> configure communication settings for seamless data transfer to mobile or cloud-based dashboards	4	4	-	-
<i>Monitor and Troubleshoot IoT Systems in Agriculture</i>	<b>9</b>	<b>14</b>	-	<b>3</b>
<b>PC8.</b> monitor real-time data collected by IoT devices and check for anomalies	4	2	-	1
<b>PC9.</b> diagnose device errors, network issues, or faulty sensor readings	1	4	-	1
<b>PC10.</b> perform routine maintenance of sensors and controllers as per guidelines	4	4	-	-
<b>PC11.</b> update firmware or software for agricultural IoT systems as needed	-	4	-	1
<i>Support Farmers and Agricultural Stakeholders</i>	<b>9</b>	<b>12</b>	-	<b>3</b>

## Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> train farmers on interpreting IoT data for better farming decisions	-	2	-	1
<b>PC13.</b> respond to user queries regarding device operation and troubleshooting	3	3	-	-
<b>PC14.</b> escalate technical issues to senior technicians when unresolved	3	4	-	1
<b>PC15.</b> provide suggestions for optimizing water use, fertilizer application, or crop monitoring using IoT insights	3	3	-	1
<b>NOS Total</b>	<b>40</b>	<b>50</b>	<b>-</b>	<b>10</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N6255
<b>NOS Name</b>	Use Internet of Things (IoT) Technology in Agriculture
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network Operation and Maintenance
<b>NSQF Level</b>	3
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	19/08/2025
<b>Next Review Date</b>	30/06/2028
<b>NSQC Clearance Date</b>	19/08/2025



## Qualification Pack

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

## Description

This OS covers the skills and knowledge required to organise work and resources efficiently while maintaining health, safety, hygiene, and environmental standards in the workplace.

## Scope

The scope covers the following :

- Maintain an organised, productive, and digitally compliant workspace
- Adhere to health, safety, and environmental guidelines
- Conserve energy and manage resources efficiently
- Implement safe and sustainable waste disposal practices

## Elements and Performance Criteria

### *Maintain an organised, productive, and digitally compliant workspace*

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

- PC1.** maintain a clean, clutter-free, and ergonomically safe workspace aligned with 5S principles
- PC2.** follow designated workflow as per the organisational Standard Operating Procedures (SOPs)
- PC3.** digitally log work completed, including time stamps, material usage, and issues faced
- PC4.** track and update digital task checklists, inventories, or handovers through mobile/desktop apps
- PC5.** identify delays, workflow inefficiencies, or material constraints and escalate appropriately.

### *Adhere to health, safety, and environmental guidelines*

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

- PC6.** comply with organisational health, safety, and environment (HSE) policies at all times
- PC7.** use personal protective equipment (PPE) such as ESD wrist straps, gloves, masks, and safety footwear
- PC8.** report any breaches in safety protocols, near misses, or unsafe practices immediately to supervisor/concerned authorities
- PC9.** detect hazards, including spillage, loose wiring, excessive noise, or EMI sources and respond as per SOP
- PC10.** follow lockout/tagout procedures when working around electrical or moving parts
- PC11.** adhere to safe lifting techniques, workstation posture norms, and equipment handling procedures
- PC12.** handle tools and heavy components using trolleys or assistive equipment when needed
- PC13.** identify early signs of physical or mental fatigue and report for preventive action
- PC14.** inform supervisor of symptoms related to communicable diseases or unsafe coworker behaviour.

### *Conserve energy and manage resources efficiently*

## Qualification Pack

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

- PC15.** minimise wastage of consumables, components, and materials by adhering to industry best practices
- PC16.** use electricity, lighting, and climate-control systems responsibly
- PC17.** power off equipment, tools, and terminals when not in use
- PC18.** ensure routine maintenance, cleaning, and calibration of machines/tools to improve performance
- PC19.** report leakages, overheating, or malfunctions immediately for rectification
- PC20.** use digital tools to monitor and reduce environmental footprint, where applicable.

*Implement safe and sustainable waste disposal practices*

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

- PC21.** segregate and dispose of hazardous, recyclable, and general waste as per guidelines
- PC22.** deposit e-waste or used batteries at designated collection points following e-waste protocols
- PC23.** follow ESD-safe disposal procedures for sensitive electronic components

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organisational procedures for workplace management, task allocation, and quality assurance
- KU2.** applicable health, safety, and environmental policies as per national/international standards (e.g., ISO 45001, ISO 14001)
- KU3.** importance and application of the 5S methodology (Sort, Set in Order, Shine, Standardise, Sustain)
- KU4.** methods for digital documentation of work records, task sheets, and material movement logs
- KU5.** common workplace hazards (e.g., ESD, fire, electrical faults, trip hazards) and mitigation procedures
- KU6.** types and correct usage of PPE (e.g., gloves, goggles, ESD wrist straps, masks, safety shoes)
- KU7.** safe practices for lifting, bending, standing, and workstation ergonomics
- KU8.** first aid procedures for minor cuts, electric shocks, or workplace injuries
- KU9.** importance of maintaining hygiene and cleanliness in workstations, tools, and devices
- KU10.** indicators of equipment or machinery malfunction and escalation protocols
- KU11.** energy-saving practices applicable to lights, equipment, and HVAC systems
- KU12.** sustainable practices in material usage, including waste minimisation and recycling
- KU13.** types of waste: recyclable, non-recyclable, hazardous (e.g., batteries, solvents, e-waste)
- KU14.** correct procedures for the disposal of different types of waste in accordance with government and industry regulations (e.g., E-Waste Management Rules)
- KU15.** usage of digital tools (e.g., mobile apps, web portals, task boards) for productivity tracking

## Generic Skills (GS)

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

## Qualification Pack

- GS1.** read and interpret organisational procedures, safety protocols, labels, and warning signage
- GS2.** write clear and accurate reports/logs in paper or digital format regarding tasks performed, incidents, or issues
- GS3.** communicate effectively with peers and supervisors regarding workload, delays, hazards, or support required
- GS4.** listen attentively and follow safety instructions, tool handling techniques, or ergonomic guidelines
- GS5.** plan daily tasks by prioritising safety and quality over speed
- GS6.** identify and resolve minor operational problems independently, escalating only where necessary
- GS7.** work as part of a team to maintain cleanliness, safety, and quality standards in a shared workspace.
- GS8.** apply critical thinking to identify risks and recommend proactive safety measures.
- GS9.** foster a positive and responsible safety culture in the workplace.
- GS10.** stay updated on evolving safety standards and regulations.

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain an organised, productive, and digitally compliant workspace</i>	<b>6</b>	<b>13</b>	-	<b>2</b>
<b>PC1.</b> maintain a clean, clutter-free, and ergonomically safe workspace aligned with 5S principles	1	2	-	-
<b>PC2.</b> follow designated workflow as per the organisational Standard Operating Procedures (SOPs)	2	3	-	-
<b>PC3.</b> digitally log work completed, including time stamps, material usage, and issues faced	1	3	-	1
<b>PC4.</b> track and update digital task checklists, inventories, or handovers through mobile/desktop apps	1	3	-	-
<b>PC5.</b> identify delays, workflow inefficiencies, or material constraints and escalate appropriately.	1	2	-	-1
<i>Adhere to health, safety, and environmental guidelines</i>	<b>13</b>	<b>24</b>	-	<b>5</b>
<b>PC6.</b> comply with organisational health, safety, and environment (HSE) policies at all times	1	3	-	1
<b>PC7.</b> use personal protective equipment (PPE) such as ESD wrist straps, gloves, masks, and safety footwear	1	3	-	-
<b>PC8.</b> report any breaches in safety protocols, near misses, or unsafe practices immediately to supervisor/concerned authorities	2	2	-	1
<b>PC9.</b> detect hazards, including spillage, loose wiring, excessive noise, or EMI sources and respond as per SOP	1	3	-	1
<b>PC10.</b> follow lockout/tagout procedures when working around electrical or moving parts	2	3	-	-
<b>PC11.</b> adhere to safe lifting techniques, workstation posture norms, and equipment handling procedures	2	3	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> handle tools and heavy components using trolleys or assistive equipment when needed	1	3	-	1
<b>PC13.</b> identify early signs of physical or mental fatigue and report for preventive action	2	2	-	1
<b>PC14.</b> inform supervisor of symptoms related to communicable diseases or unsafe coworker behaviour.	1	2	-	-
<i>Conserve energy and manage resources efficiently</i>	<b>7</b>	<b>14</b>	-	<b>2</b>
<b>PC15.</b> minimise wastage of consumables, components, and materials by adhering to industry best practices	1	3	-	-
<b>PC16.</b> use electricity, lighting, and climate-control systems responsibly	1	3	-	-
<b>PC17.</b> power off equipment, tools, and terminals when not in use	1	2	-	-
<b>PC18.</b> ensure routine maintenance, cleaning, and calibration of machines/tools to improve performance	1	2	-	1
<b>PC19.</b> report leakages, overheating, or malfunctions immediately for rectification	2	2	-	1
<b>PC20.</b> use digital tools to monitor and reduce environmental footprint, where applicable.	1	2	-	-
<i>Implement safe and sustainable waste disposal practices</i>	<b>4</b>	<b>9</b>	-	<b>1</b>
<b>PC21.</b> segregate and dispose of hazardous, recyclable, and general waste as per guidelines	2	3	-	-
<b>PC22.</b> deposit e-waste or used batteries at designated collection points following e-waste protocols	1	3	-	-
<b>PC23.</b> follow ESD-safe disposal procedures for sensitive electronic components	1	3	-	1
<b>NOS Total</b>	<b>30</b>	<b>60</b>	-	<b>10</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N9101
<b>NOS Name</b>	Organise Work and Resources as per Health and Safety Standards
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Generic
<b>Occupation</b>	Generic
<b>NSQF Level</b>	4
<b>Credits</b>	1
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	19/08/2025
<b>Next Review Date</b>	30/06/2028
<b>NSQC Clearance Date</b>	19/08/2025

## Qualification Pack

### TEL/N9102: Interact Effectively with Team Members and Customers

#### Description

This OS pertains to techniques to interact effectively with supervisors, team members, customers and promote inclusivity in the workplace.

#### Scope

The scope covers the following :

- Interact effectively with supervisors and stakeholders
- Collaborate effectively with team members and customers
- Promote inclusivity, respect, and accessibility in the workplace

#### Elements and Performance Criteria

##### *Interact effectively with supervisors and stakeholders*

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

- PC1.** receive and clarify work instructions, technical requirements, and priorities from supervisors or clients using appropriate communication tools (e.g., messaging apps, emails, virtual meetings)
- PC2.** inform supervisors or relevant stakeholders in a timely manner about any issues, risks, or deviations from planned tasks
- PC3.** contribute to team decisions by providing relevant data, suggestions, and professional feedback during team discussions
- PC4.** act promptly on constructive feedback and incorporate learnings to improve future work outcomes

##### *Collaborate effectively with team members and customers*

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

- PC5.** follow organisational norms and digital etiquette when working in hybrid or remote teams
- PC6.** communicate respectfully and effectively using face-to-face, phone, email, or collaboration platforms (e.g., MS Teams, Zoom)
- PC7.** seek clarification and respond to queries from customers and team members accurately and promptly
- PC8.** identify and de-escalate conflicts tactfully to maintain a productive and harmonious work environment
- PC9.** demonstrate emotional intelligence in team settings by recognising and responding to others' perspectives and emotional states
- PC10.** align personal efforts with team and organisational goals to ensure shared success.

##### *Promote inclusivity, respect, and accessibility in the workplace*

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

- PC11.** foster an inclusive workplace culture that respects gender, cultural, and socio-economic diversity

## Qualification Pack

- PC12.** demonstrate respectful language and conduct toward colleagues and customers of all genders and backgrounds
- PC13.** support team members with disabilities by helping remove work-related barriers or by assisting them as needed
- PC14.** practice appropriate verbal and non-verbal communication while engaging with persons with disabilities (PwDs)
- PC15.** promote equal opportunity and participation for all in meetings, decision-making, and teamwork.

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organisational structure, hierarchy, and roles of team members, supervisors, and stakeholders
- KU2.** professional etiquette and expected behaviour in face-to-face, virtual, and telephonic interactions
- KU3.** importance of clear communication and active listening to ensure mutual understanding
- KU4.** common digital communication tools (e.g., email, chat apps, video conferencing platforms) used in workplace interactions
- KU5.** feedback mechanisms within the organisation and how to respond constructively to criticism
- KU6.** cultural sensitivities, unconscious biases, and the importance of inclusion and diversity in the workplace
- KU7.** principles of emotional intelligence and how they help in team coordination and customer service
- KU8.** challenges faced by Persons with Disabilities (PwDs) and inclusive practices for working with them
- KU9.** legal and organisational frameworks supporting equality, diversity, and anti-discrimination
- KU10.** methods for conflict prevention and resolution, including mediation and escalation
- KU11.** role of respect, trust, and open communication in team effectiveness and customer satisfaction

## Generic Skills (GS)

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

- GS1.** read and interpret work instructions, emails, and policy documents related to workplace behaviour and communication.
- GS2.** write clear, concise emails, reports, or messages to team members, supervisors, or customers
- GS3.** communicate clearly and confidently in person, over the phone, and using digital communication platforms
- GS4.** adapt communication style based on the needs of the audience (e.g., customer, peer, supervisor, PwD)
- GS5.** listen attentively to gather information, understand perspectives, and clarify doubts.
- GS6.** prioritise tasks and allocate time effectively in coordination with team members



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact effectively with supervisors and stakeholders</i>	<b>11</b>	<b>13</b>	-	<b>2</b>
<b>PC1.</b> receive and clarify work instructions, technical requirements, and priorities from supervisors or clients using appropriate communication tools (e.g., messaging apps, emails, virtual meetings)	3	3	-	-
<b>PC2.</b> inform supervisors or relevant stakeholders in a timely manner about any issues, risks, or deviations from planned tasks	2	3	-	-
<b>PC3.</b> contribute to team decisions by providing relevant data, suggestions, and professional feedback during team discussions	3	4	-	1
<b>PC4.</b> act promptly on constructive feedback and incorporate learnings to improve future work outcomes	3	3	-	1
<i>Collaborate effectively with team members and customers</i>	<b>16</b>	<b>21</b>	-	<b>4</b>
<b>PC5.</b> follow organisational norms and digital etiquette when working in hybrid or remote teams	3	4	-	1
<b>PC6.</b> communicate respectfully and effectively using face-to-face, phone, email, or collaboration platforms (e.g., MS Teams, Zoom)	3	3	-	1
<b>PC7.</b> seek clarification and respond to queries from customers and team members accurately and promptly	3	3	-	1
<b>PC8.</b> identify and de-escalate conflicts tactfully to maintain a productive and harmonious work environment	2	4	-	-
<b>PC9.</b> demonstrate emotional intelligence in team settings by recognising and responding to others' perspectives and emotional states	2	3	-	-
<b>PC10.</b> align personal efforts with team and organisational goals to ensure shared success.	3	4	-	1

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Promote inclusivity, respect, and accessibility in the workplace</i>	<b>13</b>	<b>16</b>	-	<b>4</b>
<b>PC11.</b> foster an inclusive workplace culture that respects gender, cultural, and socio-economic diversity	3	3	-	1
<b>PC12.</b> demonstrate respectful language and conduct toward colleagues and customers of all genders and backgrounds	2	3	-	-
<b>PC13.</b> support team members with disabilities by helping remove work-related barriers or by assisting them as needed	3	4	-	1
<b>PC14.</b> practice appropriate verbal and non-verbal communication while engaging with persons with disabilities (PwDs)	2	3	-	1
<b>PC15.</b> promote equal opportunity and participation for all in meetings, decision-making, and teamwork.	3	3	-	1
<b>NOS Total</b>	<b>40</b>	<b>50</b>	-	<b>10</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N9102
<b>NOS Name</b>	Interact Effectively with Team Members and Customers
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Generic
<b>Occupation</b>	Generic
<b>NSQF Level</b>	4
<b>Credits</b>	1
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	19/08/2025
<b>Next Review Date</b>	30/06/2028
<b>NSQC Clearance Date</b>	19/08/2025

## Qualification Pack

### DGT/VSQ/N0101: Employability Skills (30 Hours)

#### Description

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

#### Scope

The scope covers the following :

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

#### Elements and Performance Criteria

##### *Introduction to Employability Skills*

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

**PC1.** understand the significance of employability skills in meeting the job requirements

##### *Constitutional values – Citizenship*

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

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

##### *Becoming a Professional in the 21st Century*

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

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

##### *Basic English Skills*

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

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

##### *Communication Skills*

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

**PC5.** follow good manners while communicating with others

**PC6.** work with others in a team

## Qualification Pack

### *Diversity & Inclusion*

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

**PC7.** communicate and behave appropriately with all genders and PwD

**PC8.** report any issues related to sexual harassment

### *Financial and Legal Literacy*

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

**PC9.** use various financial products and services safely and securely

**PC10.** calculate income, expenses, savings etc.

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

### *Essential Digital Skills*

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

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

**PC13.** use internet and social media platforms securely and safely

### *Entrepreneurship*

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

**PC14.** identify and assess opportunities for potential business

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

### *Customer Service*

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

**PC16.** identify different types of customers

**PC17.** identify customer needs and address them appropriately

**PC18.** follow appropriate hygiene and grooming standards

### *Getting ready for apprenticeship & Jobs*

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

**PC19.** create a basic biodata

**PC20.** search for suitable jobs and apply

**PC21.** identify and register apprenticeship opportunities as per requirement

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** need for employability skills

**KU2.** various constitutional and personal values

**KU3.** different environmentally sustainable practices and their importance

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

**KU5.** how to use basic spoken English language

**KU6.** Do and dont of effective communication

**KU7.** inclusivity and its importance

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

**KU9.** different types of financial products and services

## Qualification Pack

- KU10.** how to compute income and expenses
- KU11.** importance of maintaining safety and security in financial transactions
- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

## Generic Skills (GS)

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

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

## Qualification Pack

### Assessment Criteria

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

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> calculate income, expenses, savings etc.	-	-	-	-
<b>PC11.</b> approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	<b>4</b>	<b>6</b>	-	-
<b>PC12.</b> operate digital devices and use its features and applications securely and safely	-	-	-	-
<b>PC13.</b> use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	<b>3</b>	<b>5</b>	-	-
<b>PC14.</b> identify and assess opportunities for potential business	-	-	-	-
<b>PC15.</b> identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	<b>2</b>	<b>2</b>	-	-
<b>PC16.</b> identify different types of customers	-	-	-	-
<b>PC17.</b> identify customer needs and address them appropriately	-	-	-	-
<b>PC18.</b> follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship &amp; Jobs</i>	<b>1</b>	<b>3</b>	-	-
<b>PC19.</b> create a basic biodata	-	-	-	-
<b>PC20.</b> search for suitable jobs and apply	-	-	-	-
<b>PC21.</b> identify and register apprenticeship opportunities as per requirement	-	-	-	-
<b>NOS Total</b>	<b>20</b>	<b>30</b>	-	-



## Qualification Pack

### National Occupational Standards (NOS) Parameters

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

## Assessment Guidelines and Assessment Weightage

### Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each 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 : 50**

(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/N6252.Carry out Troubleshooting for IoT Devices and Connectivity Issues	30	60	-	10	100	15
TEL/N6253.Assist in Providing IoT Solutions to Clients	30	60	-	10	100	15
TEL/N6254.Assist in Creating Smart Cities by Implementing Internet of Things (IoT) Solutions	40	50	-	10	100	15
TEL/N6255.Use Internet of Things (IoT) Technology in Agriculture	40	50	-	10	100	15
TEL/N9101.Organise Work and Resources as per Health and Safety Standards	30	60	0	10	100	15
TEL/N9102.Interact Effectively with Team Members and Customers	40	50	0	10	100	15
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	10
<b>Total</b>	<b>230</b>	<b>360</b>	<b>0</b>	<b>60</b>	<b>650</b>	<b>100</b>

## Qualification Pack

### Acronyms

<b>NOS</b>	National Occupational Standard(s)
<b>NSQF</b>	National Skills Qualifications Framework
<b>QP</b>	Qualifications Pack
<b>TVET</b>	Technical and Vocational Education and Training
<b>NOS</b>	National Occupational Standard(s)
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## Qualification Pack

### Glossary

<b>Sector</b>	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.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	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.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	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.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	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.
<b>Scope</b>	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

<b>Knowledge and Understanding (KU)</b>	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.
<b>Organisational Context</b>	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.
<b>Technical Knowledge</b>	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
<b>Core Skills/ Generic Skills (GS)</b>	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.
<b>Electives</b>	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.
<b>Options</b>	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.
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