



# AI Devices Installation Operator

QP Code: TEL/Q6102

Version: 1.0

NSQF Level: 3

Telecom Sector Skill Council || 3rd Floor, Plot No 126, Sector - 44  
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## TEL/Q6102: AI Devices Installation Operator

### Brief Job Description

The individual in this job is responsible for collecting and analysing the data from the customers for installation of Artificial Intelligence (AI) devices, their usage and application in the client business scenarios. The individual is also responsible for installing the devices and then verifying the efficiency and application of the installed devices as per customer expectations.

### Personal Attributes

The individual needs to have the ability to upgrade skills with changing technologies, work in a team, multitask and track multiple projects simultaneously with full dedication and willingness. The individual should have generic communication and leadership skills, attention to details, excellent problem-solving capabilities, strong quantitative abilities and good interpersonal skills.

### Applicable National Occupational Standards (NOS)

#### Compulsory NOS:

1. [TEL/N6106: Prepare for Installation of AI Devices](#)
2. [TEL/N6107: Install AI Devices in the Proposed Business Model](#)
3. [TEL/N6108: Predictive Maintenance using AI Devices](#)
4. [TEL/N9101: Organise Work and Resources as per Health and Safety Standards](#)
5. [TEL/N9102: Interact Effectively with Team Members and Customers](#)

### Qualification Pack (QP) Parameters

<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network (Active Components Installation)
<b>Country</b>	India
<b>NSQF Level</b>	3
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/NIL

<b>Minimum Educational Qualification &amp; Experience</b>	10th Class OR 8th Class (+ ITI (2 years in Electronics/Telecom/IT and other relevant fields)) OR 8th Class (and pursuing continuous regular schooling)
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	15 Years
<b>Last Reviewed On</b>	NA
<b>Next Review Date</b>	NA
<b>NSQC Approval Date</b>	
<b>Version</b>	1.0

## **TEL/N6106: Prepare for Installation of AI Devices**

### **Description**

This OS unit is about carrying out various activities to analyze the requirements and specifications of the customer, including the upgradation of new Artificial Intelligence (AI) devices and the services required for existing technology.

### **Scope**

The scope covers the following :

- Analyze requirements and specifications of the customer
- Collect data based on analyzing

### **Elements and Performance Criteria**

#### *Analyse requirements and specifications of customer*

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

- PC1.** assess the key optimization requirements of the customer such as enhancing security, asset or manpower optimization, improved performance, higher efficiency, enhanced customer experience in 5G, IoT and enterprise business models, etc.
- PC2.** analyse the current business model of the customer for finding the area to be improved and feasibility of AI solutions
- PC3.** collect performance reports of previously installed devices such as sensors, biometrics, CCTV surveillance, sensors, detectors, etc.
- PC4.** advise a suitable business model (AI devices, their quantity, location, support applications etc.) based on the requirements and specifications provided by the customer

#### *Collect data based on analysing*

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

- PC5.** collect data pertaining to the industry trends from various reliable sources
- PC6.** analyse the data about changing technologies in the industry and their application in the current business model
- PC7.** collate the information on the latest industry trends and requirements of the customer vis-à-vis the AI devices proposed to be installed
- PC8.** identify the products, competitors, and landscapes to ensure the reliability/preferences of AI devices along with the various quotes for implementing and installing the AI solution
- PC9.** evaluate the selected supplier on the basis of solution performance, geographic availability, support services, security, etc.
- PC10.** ensure that the AI devices providing real-time data perform as per requirements and specifications in the current business scenario keeping in mind current statistics such as network bandwidth, traffic, geographical location, signal strength, etc.

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

The individual on the job needs to know and understand:

- KU1.** the impact of industry trends
- KU2.** how to ensure transparency in customer transactions
- KU3.** how AI really works and a basic understanding of AI
- KU4.** AI used cases and typical applications in the Telecom sector
- KU5.** difference between emergency services related to AI (continuity and accuracy) and AI for mass data analytics (volume and sample size)
- KU6.** performance of devices to supply chain and logistics operations
- KU7.** usage or implementation of IoT in different sectors including manufacturing, transportation, utility organizations, engineering, industry, and infrastructure
- KU8.** connection of devices with robotics and artificial intelligence

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

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

- GS1.** communicate with team members accurately
- GS2.** analyse and interpret the messages and prompts timely and correctly
- GS3.** communicate with external stakeholders in their preferred language
- GS4.** provide advice and guidance to peers and juniors
- GS5.** seek experts help timely if needed at any stage
- GS6.** prioritise tasks in high-pressure environment
- GS7.** interpret reports and numerical data
- GS8.** perform multiple tasks/activities at the same time
- GS9.** read standards documents such as provisioning guide, reports, requirement guides, user manuals
- GS10.** adapt new technologies

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Analyse requirements and specifications of customer</i>	<b>11</b>	<b>27</b>	-	<b>4</b>
<b>PC1.</b> assess the key optimization requirements of the customer such as enhancing security, asset or manpower optimization, improved performance, higher efficiency, enhanced customer experience in 5G, IoT and enterprise business models, etc.	3	8	-	1
<b>PC2.</b> analyse the current business model of the customer for finding the area to be improved and feasibility of AI solutions	3	6	-	1
<b>PC3.</b> collect performance reports of previously installed devices such as sensors, biometrics, CCTV surveillance, sensors, detectors, etc.	2	7	-	1
<b>PC4.</b> advise a suitable business model (AI devices, their quantity, location, support applications etc.) based on the requirements and specifications provided by the customer	3	6	-	1
<i>Collect data based on analysing</i>	<b>19</b>	<b>33</b>	-	<b>6</b>
<b>PC5.</b> collect data pertaining to the industry trends from various reliable sources	2	5	-	1
<b>PC6.</b> analyse the data about changing technologies in the industry and their application in the current business model	3	5	-	1
<b>PC7.</b> collate the information on the latest industry trends and requirements of the customer vis-à-vis the AI devices proposed to be installed	3	5	-	1
<b>PC8.</b> identify the products, competitors, and landscapes to ensure the reliability/preferences of AI devices along with the various quotes for implementing and installing the AI solution	4	6	-	1
<b>PC9.</b> evaluate the selected supplier on the basis of solution performance, geographic availability, support services, security, etc.	3	6	-	1

<b>Assessment Criteria for Outcomes</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>
<b>PC10.</b> ensure that the AI devices providing real-time data perform as per requirements and specifications in the current business scenario keeping in mind current statistics such as network bandwidth, traffic, geographical location, signal strength, etc.	4	6	-	1
<b>NOS Total</b>	<b>30</b>	<b>60</b>	<b>-</b>	<b>10</b>

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N6106
<b>NOS Name</b>	Prepare for Installation of AI Devices
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network (Active Components Installation)
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Next Review Date</b>	NA

## TEL/N6107: Install AI Devices in the Proposed Business Model

### Description

This OS unit is about installing Artificial Intelligence (AI) devices for enhancing and improving the efficiency of various aspects such as network optimization, asset optimization, security, etc. which includes the software and hardware required to set up the devices.

### Scope

The scope covers the following :

- Perform pre-installation activities
- Perform routine for installing devices

### Elements and Performance Criteria

#### *Perform pre-installation activities*

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

- PC1.** check the basic connectivity, network and communication protocols
- PC2.** check the availability of the basic elements required for installation, set up, and connection of the devices
- PC3.** identify the embedded systems such as processors, controllers, sensors, and communication hardware and analyze their effectiveness for collating and monitoring data
- PC4.** identify the types of microprocessor boards like Arduino, raspberry-Pi, customized platforms, etc. that need to be integrated as per the current required setup on site
- PC5.** analyze the working of sensors like humidity sensor, temperature sensor, gyrometer, accelerometer, video surveillance cameras, etc. and check their requirement for the current business model
- PC6.** assess the application of sensors fitment to the business model
- PC7.** analyse the application of short and long range protocols for the surveillance cameras

#### *Perform routing for installing devices*

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

- PC8.** identify the software/hardware required to achieve optimal output
- PC9.** ensure requirements fit the architectural design of the building
- PC10.** identify the working process including data collection, device integration, real-time analytics, application, and process extension
- PC11.** identify the application of devices to collect, send and act on data

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** variety of tools and techniques used to monitor and improve network performance
- KU2.** different types of features required for devices such as Connectivity, Analysing, Integrating, Artificial Intelligence, Sensing

- KU3.** various types of sensors and actuators
- KU4.** smart devices that use embedded systems, such as processors, sensors and communication hardware, to collect, send and act on data they acquire from their environment
- KU5.** business systems implementation for efficient interaction between devices
- KU6.** business intelligence and various associated developer/engineer and data scientist roles
- KU7.** basics of machine learning (ML)
- KU8.** research and science involved in application of AI

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

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

- GS1.** read and comprehend reports and instructions
- GS2.** analyze problems and suggest suitable solutions
- GS3.** implement ways to timely take actions on issues
- GS4.** multitask activities in daily life at work

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform pre-installation activities</i>	<b>22</b>	<b>44</b>	-	<b>8</b>
<b>PC1.</b> check the basic connectivity, network and communication protocols	3	5	-	1
<b>PC2.</b> check the availability of the basic elements required for installation, set up, and connection of the devices	3	6	-	1
<b>PC3.</b> identify the embedded systems such as processors, controllers, sensors, and communication hardware and analyze their effectiveness for collating and monitoring data	2	6	-	1
<b>PC4.</b> identify the types of microprocessor boards like Arduino, raspberry-Pi, customized platforms, etc. that need to be integrated as per the current required setup on site	4	8	-	2
<b>PC5.</b> analyze the working of sensors like humidity sensor, temperature sensor, gyrometer, accelerometer, video surveillance cameras, etc. and check their requirement for the current business model	5	7	-	1
<b>PC6.</b> assess the application of sensors fitment to the business model	2	5	-	1
<b>PC7.</b> analyse the application of short and long range protocols for the surveillance cameras	3	7	-	1
<i>Perform routing for installing devices</i>	<b>8</b>	<b>16</b>	-	<b>2</b>
<b>PC8.</b> identify the software/hardware required to achieve optimal output	2	5	-	1
<b>PC9.</b> ensure requirements fit the architectural design of the building	2	4	-	1
<b>PC10.</b> identify the working process including data collection, device integration, real-time analytics, application, and process extension	2	4	-	-
<b>PC11.</b> identify the application of devices to collect, send and act on data	2	3	-	-
<b>NOS Total</b>	<b>30</b>	<b>60</b>	-	<b>10</b>

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N6107
<b>NOS Name</b>	Install AI Devices in the Proposed Business Model
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network (Active Components Installation)
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Next Review Date</b>	NA

## **TEL/N6108: Predictive Maintenance using AI Devices**

### **Description**

This OS unit is about carrying out predictive and corrective maintenance of AI devices.

### **Scope**

The scope covers the following :

- Perform predictive maintenance
- Implement virtual assistant applications
- Maintain documentation

### **Elements and Performance Criteria**

#### *Perform predictive maintenance*

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

- PC1.** record the warning notifications and diagnosis of equipment provided by predictive analytics software
- PC2.** analyze the warnings with respect to the previous data
- PC3.** use AI to understand the relationship between sensors
- PC4.** prepare a preventive maintenance strategy with the team
- PC5.** perform the necessary tasks for fixing the faults on site
- PC6.** coordinate with the superiors/team members to complete the task

#### *Implement virtual assistant applications*

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

- PC7.** identify the initial troubleshooting phase of the device
- PC8.** perform tests and run system health checks
- PC9.** ensure to run call detail records (CDRs)/ trace
- PC10.** provide information about on-going maintenance works, outages and general regulatory information
- PC11.** update and prioritise tickets for human agents if issues are not resolved

#### *Maintain documentation*

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

- PC12.** document all diagnosis reports and warning notifications in prescribed formats
- PC13.** ensure all incidents and requests are logged properly
- PC14.** ensure all documents are timely maintained and reported to authorised personnel
- PC15.** ensure all documents are validated and verified timely to check for any anomalies in the working of the devices

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

The individual on the job needs to know and understand:

- KU1.** use of different types of predictive analytics software
- KU2.** use of virtual assistants
- KU3.** standard fault-finding (troubleshooting) techniques
- KU4.** types of documentation in organization and its importance
- KU5.** records to be maintained and implication of non-maintenance
- KU6.** testing tools
- KU7.** User Equipment (UE) simulators such as Aero flex TM500 and Keysight
- KU8.** User Equipment (UE) debuggers like Qualcomm EXtensible Diagnostic Monitor (QXDM), XML representation of the iCalendar standard (XCAL) and Test Mobile System (TEMS)
- KU9.** channel and network emulators
- KU10.** various formats (PDF/XML/HTML/DOC) in which the report needs to be generated

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

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

- GS1.** interpret notifications, alert and messages
- GS2.** read and comprehend generated report
- GS3.** analyse problems and implement suitable solutions

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform predictive maintenance</i>	<b>10</b>	<b>22</b>	-	<b>6</b>
<b>PC1.</b> record the warning notifications and diagnosis of equipment provided by predictive analytics software	2	3	-	1
<b>PC2.</b> analyze the warnings with respect to the previous data	2	4	-	1
<b>PC3.</b> use AI to understand the relationship between sensors	1	3	-	1
<b>PC4.</b> prepare a preventive maintenance strategy with the team	1	4	-	1
<b>PC5.</b> perform the necessary tasks for fixing the faults on site	2	4	-	1
<b>PC6.</b> coordinate with the superiors/team members to complete the task	2	4	-	1
<i>Implement virtual assistant applications</i>	<b>8</b>	<b>22</b>	-	<b>5</b>
<b>PC7.</b> identify the initial troubleshooting phase of the device	1	5	-	1
<b>PC8.</b> perform tests and run system health checks	1	5	-	1
<b>PC9.</b> ensure to run call detail records (CDRs)/trace	2	3	-	1
<b>PC10.</b> provide information about on-going maintenance works, outages and general regulatory information	2	5	-	1
<b>PC11.</b> update and prioritise tickets for human agents if issues are not resolved	2	4	-	1
<i>Maintain documentation</i>	<b>7</b>	<b>16</b>	-	<b>4</b>
<b>PC12.</b> document all diagnosis reports and warning notifications in prescribed formats	2	4	-	1
<b>PC13.</b> ensure all incidents and requests are logged properly	1	4	-	1

<b>Assessment Criteria for Outcomes</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>
<b>PC14.</b> ensure all documents are timely maintained and reported to authorised personnel	2	4	-	1
<b>PC15.</b> ensure all documents are validated and verified timely to check for any anomalies in the working of the devices	2	4	-	1
<b>NOS Total</b>	<b>25</b>	<b>60</b>	<b>-</b>	<b>15</b>

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N6108
<b>NOS Name</b>	Predictive Maintenance using AI Devices
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Network Managed Services
<b>Occupation</b>	Network (Active Components Installation)
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Next Review Date</b>	NA

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

### Description

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

### Scope

The scope covers the following :

- Perform work as per quality standards
- Maintain safe, healthy and secure working environment
- Conserve material/energy/electricity
- Use effective waste management/recycling practices

### Elements and Performance Criteria

#### *Perform work as per quality standards*

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

- PC1.** keep workspace clean and tidy
- PC2.** perform individual role and responsibilities as per the job role while taking accountability for the work
- PC3.** record/document tasks completed as per the requirements within specific timelines
- PC4.** implement schedules to ensure timely completion of tasks
- PC5.** identify the cause of a problem related to own work and validate it
- PC6.** analyse problems accurately and communicate different possible solutions to the problem

#### *Maintain safe, healthy and secure working environment*

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

- PC7.** comply with organisation's current health, safety, security policies and procedures
- PC8.** check for water spills in and around the work space and escalate these to the appropriate authority
- PC9.** report any identified breaches in health, safety, and security policies and procedures to the designated person
- PC10.** use safety materials such as goggles, gloves, ear plugs, caps, ESD pins, covers, shoes, etc.
- PC11.** avoid damage of components due to negligence in ESD procedures or any other loss due to safety negligence
- PC12.** identify hazards such as illness, accidents, fires or any other natural calamity safely, as per organisation's emergency procedures, within the limits of individual's authority
- PC13.** participate regularly in fire drills or other safety related workshops organised by the company
- PC14.** report any hazard outside the individual's authority to the relevant person in line with organisational procedures and warn others who may be affected
- PC15.** maintain appropriate posture while sitting/standing for long hours

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

*Conserve material/energy/electricity*

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

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

*Use effective waste management/recycling practices*

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

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

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** strategies pertinent to their field (such as internet searches, asking peers and managers, enrolling for courses and certifications, etc.) that can be used to pursue an advancement in their skills
- KU2.** key performance indicators for the new tasks
- KU3.** feedback processes and formats
- KU4.** timelines and goals as well as their relevance to work allocated
- KU5.** importance of quality and timely delivery of the product/service
- KU6.** escalation matrix and its importance, especially in case of emergencies
- KU7.** ways of time and cost management
- KU8.** rules/regulation for maintaining health and safety at workplace
- KU9.** meaning of hazard, different types of health and safety hazards found in the workplace, risks and threats based on the nature of work

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

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

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

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

## Assessment Criteria

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

<b>Assessment Criteria for Outcomes</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>
<b>PC13.</b> participate regularly in fire drills or other safety related workshops organised by the company	1	3	-	-
<b>PC14.</b> report any hazard outside the individual's authority to the relevant person in line with organisational procedures and warn others who may be affected	1	3	-	-
<b>PC15.</b> maintain appropriate posture while sitting/standing for long hours	1	1	-	-
<b>PC16.</b> handle heavy and hazardous materials with care, while maintaining appropriate posture	1	1	-	-
<b>PC17.</b> sanitize workstation and equipment regularly	1	2	-	-
<b>PC18.</b> clean hands with soap, alcohol-based sanitizer regularly	-	1	-	-
<b>PC19.</b> avoid contact with anyone suffering from communicable diseases and take necessary precautions	-	1	-	-
<b>PC20.</b> take safety precautions while travelling e.g. maintain 1m distance from others, sanitize hands regularly, wear masks, etc.	1	2	-	-
<b>PC21.</b> report hygiene and sanitation issues to appropriate authority	1	1	-	-
<b>PC22.</b> follow recommended personal hygiene and sanitation practices, for example, washing/sanitizing hands, covering face with a bent elbow while coughing/sneezing, using PPE, etc.	1	1	-	-
<i>Conserve material/energy/electricity</i>	<b>7</b>	<b>16</b>	-	<b>3</b>
<b>PC23.</b> optimize usage of material including water in various tasks/activities/processes	1	2	-	-
<b>PC24.</b> use resources such as water, electricity and others responsibly	1	2	-	1
<b>PC25.</b> carry out routine cleaning of tools, machine and equipment	1	2	-	-
<b>PC26.</b> optimize use of electricity/energy in various tasks/activities/processes	1	3	-	1

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

## 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>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	31/03/2022
<b>Next Review Date</b>	31/03/2026
<b>NSQC Clearance Date</b>	31/03/2022

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

### Description

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

### Scope

The scope covers the following :

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

### Elements and Performance Criteria

#### *Interact effectively with superiors*

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

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

#### *Interact effectively with colleagues and customers*

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

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

#### *Respect differences of gender and ability*

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

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

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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

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

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

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

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact effectively with superiors</i>	<b>7</b>	<b>15</b>	-	<b>2</b>
<b>PC1.</b> receive work requirements from superiors and customers and interpret them correctly	1	2	-	-
<b>PC2.</b> inform the supervisor and/or concerned person about any unforeseen disruptions or delays	2	4	-	1
<b>PC3.</b> participate in decision making by providing facts and figures, giving/accepting constructive suggestions	2	5	-	1
<b>PC4.</b> rectify errors as per feedback and ensure the errors are not repeated	2	4	-	-
<i>Interact effectively with colleagues and customers</i>	<b>7</b>	<b>26</b>	-	<b>4</b>
<b>PC5.</b> comply with organisation's policies and procedures for working with team members	1	2	-	-
<b>PC6.</b> communicate professionally using appropriate mode of communication such as face-to-face, telephonic and written	2	4	-	1
<b>PC7.</b> respond to queries and seek/provide clarifications if required	2	4	-	1
<b>PC8.</b> co-ordinate with team to integrate work as per requirements	-	3	-	-
<b>PC9.</b> resolve conflicts within the team/with customers to achieve smooth workflow	1	5	-	1
<b>PC10.</b> recognize emotions accurately in self and others to build good relationships	1	4	-	-
<b>PC11.</b> prioritize team and organization goals above personal goals	-	4	-	1
<i>Respect differences of gender and ability</i>	<b>11</b>	<b>24</b>	-	<b>4</b>
<b>PC12.</b> maintain a conducive environment for all the genders at the workplace	2	5	-	1
<b>PC13.</b> encourage appropriate behavior and conduct with people across gender	2	5	-	1

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

## 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>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	31/03/2022
<b>Next Review Date</b>	31/03/2026
<b>NSQC Clearance Date</b>	31/03/2022

## Assessment Guidelines and Assessment Weightage

### Assessment Guidelines

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

**Minimum Aggregate Passing % at QP Level : 70**

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

### Assessment Weightage

Compulsory NOS

<b>National Occupational Standards</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>	<b>Total Marks</b>	<b>Weightage</b>
TEL/N6106.Prepare for Installation of AI Devices	30	60	0	10	100	20
TEL/N6107.Install AI Devices in the Proposed Business Model	30	60	0	10	100	20
TEL/N6108.Predictive Maintenance using AI Devices	25	60	0	15	100	20
TEL/N9101.Organise 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
<b>Total</b>	<b>140</b>	<b>305</b>	<b>0</b>	<b>55</b>	<b>500</b>	<b>100</b>

## 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

## 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.
<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.