



# Telecom Surface Mount Technology (SMT) Technician

QP Code: TEL/Q2501

Version: 4.0

NSQF Level: 4

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

## Qualification Pack

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## Qualification Pack

# TEL/Q2501: Telecom Surface Mount Technology (SMT) Technician

## Brief Job Description

An individual in this job role is responsible for handling end-to-end SMT process which includes screen printing, component placement, reflow soldering, cleaning and inspection, including re-work to address defects. The technician will be handling high end machinery/equipment towards achieving the above functionality.

## Personal Attributes

This job requires the individual to have technical appreciation of the processes, analytical skills, eye for details and work towards optimal throughput. Individual needs to be focused, process oriented and should have ability to work with concentration during the shift hours.

## Applicable National Occupational Standards (NOS)

### Compulsory NOS:

1. [TEL/N2503: Screen Printing of Telecom Boards](#)
2. [TEL/N2504: Component Placement on Telecom Boards](#)
3. [TEL/N2505: Re-flow soldering on Telecom Boards](#)
4. [TEL/N2502: Cleaning and Inspection of Telecom Boards](#)
5. [TEL/N9101: Organize Work and Resources as per Health and Safety Standards](#)
6. [TEL/N9102: Interact Effectively with Team Members and Customers](#)
7. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

## Qualification Pack (QP) Parameters

<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Handset
<b>Occupation</b>	Communication Electronics
<b>Country</b>	India
<b>NSQF Level</b>	4

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<b>Credits</b>	19
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/3114.1403
<b>Minimum Educational Qualification &amp; Experience</b>	11th grade pass OR Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma OR 10th grade pass and pursuing continuous schooling OR 10th grade pass with 2 Years of experience OR Previous relevant Qualification of NSQF Level (3 with minimum education as 5th Grade pass) with 2 Years of experience
<b>Minimum Level of Education for Training in School</b>	Not Applicable
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	17 Years
<b>Last Reviewed On</b>	NA
<b>Next Review Date</b>	24/02/2025
<b>NSQC Approval Date</b>	24/02/2022
<b>Version</b>	4.0
<b>Reference code on NQR</b>	2022/TEL/TSSC/07012
<b>NQR Version</b>	2

## Qualification Pack

### TEL/N2503: Screen Printing of Telecom Boards

#### Description

This OS unit is about screen printing of telecom boards and associated processes with an aim to achieve uniform deposition of solder paste on the required positions on the boards.

#### Scope

The scope covers the following :

- Baking of boards
- Screen printing process

#### Elements and Performance Criteria

##### *Baking of boards*

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

- PC1.** ascertain the baking requirements as per the customer specifications or standard processes
- PC2.** demonstrate proper stacking/placement of boards in the oven rack
- PC3.** demonstrate setting of temperature and timer of the oven as per the requirement

##### *Screen printing process*

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

- PC4.** identify and select correct tools and accessories (stencil matching the part/ pattern number vis--vis the PCB for screen printing, squeeze as per PCB size, correct solder paste/ combination as per the specifications)
- PC5.** demonstrate proper cleaning of the stencil, before and after use, using the specified process and solvents
- PC6.** demonstrate process for even deposition of paste on boards
- PC7.** demonstrate process of properly thawing the solder pastes and setting of solder paste parameters as per the specifications
- PC8.** demonstrate correct positioning of stencil, solder paste & squeeze and related parameters in the screen printer and undertake screen printing operation
- PC9.** carry out paste thickness measurement as part of post printing process and check the thickness for conformance to the specification

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** process and procedures for drawing stores, drawings, specification and their safe keeping
- KU2.** risk and impact of not following defined procedures/ work instructions and timelines
- KU3.** escalation matrix for reporting identified incidents, troubles and/ or emergencies
- KU4.** records to be maintained and implications of non-maintenance of the same

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- KU5.** Safety Health and Environment (SHE) and Occupational Health and Safety (OHS) guidelines and regulations as per company norms
- KU6.** impact of moisture on PCBs and relevance of baking
- KU7.** importance of selecting soldering paste with desired characteristics
- KU8.** relevance of proper thawing of soldering paste, cleaning of stencils and even application of soldering paste on the PCB
- KU9.** impact of temperature and humidity on the process
- KU10.** impact of proper alignment and supporting of screen by proper locating of support pins
- KU11.** operation of screen printing machine
- KU12.** importance of proper stowage of consumables
- KU13.** quality requirements of PCBs like fiducial mark availability etc.

## Generic Skills (GS)

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

- GS1.** read and interpret necessary documents
- GS2.** read and understand manuals, requirement documents, operational health and safety instructions, memos, reports etc.
- GS3.** read and comprehend/understand material specifications
- GS4.** communicate with colleagues, peers and supervisor
- GS5.** liaise and coordinate with third party vendors/other stakeholders

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Baking of boards</i>	<b>4</b>	<b>12</b>	-	<b>3</b>
<b>PC1.</b> ascertain the baking requirements as per the customer specifications or standard processes	2	5	-	1
<b>PC2.</b> demonstrate proper stacking/placement of boards in the oven rack	1	3	-	1
<b>PC3.</b> demonstrate setting of temperature and timer of the oven as per the requirement	1	4	-	1
<i>Screen printing process</i>	<b>16</b>	<b>53</b>	-	<b>12</b>
<b>PC4.</b> identify and select correct tools and accessories (stencil matching the part/ pattern number vis--vis the PCB for screen printing, squeeze as per PCB size, correct solder paste/ combination as per the specifications)	3	10	-	2
<b>PC5.</b> demonstrate proper cleaning of the stencil, before and after use, using the specified process and solvents	2	7	-	2
<b>PC6.</b> demonstrate process for even deposition of paste on boards	1	7	-	2
<b>PC7.</b> demonstrate process of properly thawing the solder pastes and setting of solder paste parameters as per the specifications	3	9	-	2
<b>PC8.</b> demonstrate correct positioning of stencil, solder paste & squeeze and related parameters in the screen printer and undertake screen printing operation	4	9	-	2
<b>PC9.</b> carry out paste thickness measurement as part of post printing process and check the thickness for conformance to the specification	3	11	-	2
<b>NOS Total</b>	<b>20</b>	<b>65</b>	-	<b>15</b>

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N2503
<b>NOS Name</b>	Screen Printing of Telecom Boards
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Handset
<b>Occupation</b>	Communication Electronics
<b>NSQF Level</b>	4
<b>Credits</b>	4
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	24/02/2025
<b>NSQC Clearance Date</b>	24/02/2022



## Qualification Pack

### TEL/N2504: Component Placement on Telecom Boards

#### Description

This OS unit is about screen printing of boards and associated processes with the aim to achieve uniform deposition of solder paste on the required positions of components on the board using chip shooter and pitch placer equipment.

#### Scope

The scope covers the following :

- Feeding placement data
- Loading of chip component rolls
- Loading of chip component trays
- Operating chip shooter and fine pitch placer and functional/QA checks on the PCB

#### Elements and Performance Criteria

##### *Feeding placement data*

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

- PC1.** demonstrate specifications of board and map to the correct software version of chip shooter/pitch placer
- PC2.** interpret Gerber data, x-y coordinate data
- PC3.** work with user interface and features of the machine/equipment software and demonstrate the same
- PC4.** demonstrate data entry/ loading of component placement program to the chip shooter/fine pitch placer

##### *Loading of chip component rolls*

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

- PC5.** check operation of the roll feeder mechanism
- PC6.** feed Gerber data and insert feeder rolls on the suggested slots of the chipshooter
- PC7.** verify component rolls as per the part number/work specifications
- PC8.** demonstrate loading of chip component rolls in the feeder
- PC9.** feed X-Y co-ordinate data for correct positioning of components

##### *Loading of chip component trays*

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

- PC10.** load components on the tray as per the placement program
- PC11.** place the components with correct orientation in the feeder tray
- PC12.** check operation of the mechanism including vision cameras

##### *Operating chip shooter and fine pitch placer and functional/QA checks on the PCB*

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

- PC13.** verify correct loading of boards, program and component rolls/ trays
- PC14.** check placement vacuum pressure

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- PC15.** check for feeder mechanism functions and ensure its error free operation
- PC16.** operate the component placement equipment
- PC17.** use tape board technique to verify the placement accuracy
- PC18.** verify the correctness of components and placement (under microscope) for the first sample board

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** work/project management concepts and applications
- KU2.** procedure for drawing components/drawings and impact of non-adherence to the procedures
- KU3.** escalation matrix for reporting non-compliance
- KU4.** process and work records to be maintained
- KU5.** Safety Health and Environment (SHE) and Occupational Health and Safety (OHS) guidelines and regulations as per company norms
- KU6.** system specifications, part/pattern numbers and Bill of Material
- KU7.** operating parameters of component placement machines/ equipment
- KU8.** Gerber and x-y co-ordinate data
- KU9.** operations cycle of the component placement machine/equipment
- KU10.** reading/verifying components under microscope to check correct placement and connectivity (no bend pins/legs etc.)
- KU11.** ESD precautions and hygiene
- KU12.** type of SMT defects like tombstone and solder short

## Generic Skills (GS)

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

- GS1.** read and interpret necessary documents
- GS2.** read and understand manuals, requirement documents, operational health and safety instructions, memos, reports etc.
- GS3.** read and comprehend/understand material specifications
- GS4.** communicate with colleagues, peers and supervisor
- GS5.** liaise and coordinate with third party vendors/other stakeholders

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Feeding placement data</i>	<b>6</b>	<b>15</b>	-	<b>6</b>
<b>PC1.</b> demonstrate specifications of board and map to the correct software version of chip shooter/ pitch placer	2	5	-	2
<b>PC2.</b> interpret Gerber data, x-y coordinate data	1	2	-	1
<b>PC3.</b> work with user interface and features of the machine/equipment software and demonstrate the same	1	3	-	1
<b>PC4.</b> demonstrate data entry/ loading of component placement program to the chip shooter/fine pitch placer	2	5	-	2
<i>Loading of chip component rolls</i>	<b>9</b>	<b>10</b>	-	<b>5</b>
<b>PC5.</b> check operation of the roll feeder mechanism	1	2	-	1
<b>PC6.</b> feed Gerber data and insert feeder rolls on the suggested slots of the chipshooter	2	1	-	1
<b>PC7.</b> verify component rolls as per the part number/work specifications	2	2	-	1
<b>PC8.</b> demonstrate loading of chip component rolls in the feeder	2	2	-	1
<b>PC9.</b> feed X-Y co-ordinate data for correct positioning of components	2	3	-	1
<i>Loading of chip component trays</i>	<b>4</b>	<b>8</b>	-	<b>3</b>
<b>PC10.</b> load components on the tray as per the placement program	1	2	-	1
<b>PC11.</b> place the components with correct orientation in the feeder tray	2	3	-	1
<b>PC12.</b> check operation of the mechanism including vision cameras	1	3	-	1
<i>Operating chip shooter and fine pitch placer and functional/QA checks on the PCB</i>	<b>6</b>	<b>22</b>	-	<b>6</b>

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> verify correct loading of boards, program and component rolls/ trays	1	4	-	1
<b>PC14.</b> check placement vacuum pressure	1	2	-	1
<b>PC15.</b> check for feeder mechanism functions and ensure its error free operation	1	6	-	1
<b>PC16.</b> operate the component placement equipment	1	3	-	1
<b>PC17.</b> use tape board technique to verify the placement accuracy	1	5	-	1
<b>PC18.</b> verify the correctness of components and placement (under microscope) for the first sample board	1	2	-	1
<b>NOS Total</b>	<b>25</b>	<b>55</b>	<b>-</b>	<b>20</b>

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N2504
<b>NOS Name</b>	Component Placement on Telecom Boards
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Handset
<b>Occupation</b>	Communication Electronics
<b>NSQF Level</b>	4
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	24/02/2025
<b>NSQC Clearance Date</b>	24/02/2022

## Qualification Pack

### TEL/N2505: Re-flow soldering on Telecom Boards

#### Description

This OS unit is about re-flow soldering of telecom boards including all related processes and operations

#### Scope

The scope covers the following :

- Preparing the re-flow machine
- Re-flow operation on the PCB and its QA checks

#### Elements and Performance Criteria

##### *Preparing the reflow machine*

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

- PC1.** interpret solder paste parameters from the datasheet and suggested parameters from re-flow machine
- PC2.** demonstrate loading of parameters in the re-flow machine
- PC3.** demonstrate passing a sample PCB through the re-flow machine, with reading being recorded using thermal probes
- PC4.** match the readings with the desired outcome and undertake corrective settings

##### *Re-flow operation on the PCB and its QA checks*

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

- PC5.** undertake setting of machines is set as per the parameters ascertained during the preparatory process
- PC6.** prepare and pass the loaded PCB (with solder and components placed) through the re-flow machine
- PC7.** safely remove the PCB at the end of the cycle
- PC8.** check for any dry solder, ascertain even reflow, tombstone, de-lamination, misalignment and/or disturbed components and any other damage to PCB

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** work/project management concepts and applications
- KU2.** work instructions and operating guidelines for reflow machines/processes and impact of non-adherence to the defined processes
- KU3.** escalation matrix for reporting an incident
- KU4.** records to be maintained and implications of non-maintenance of the same
- KU5.** Safety Health and Environment (SHE) and Occupational Health and Safety (OHS) guidelines and regulations as per company norms
- KU6.** solder characteristic at various temperature points

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- KU7.** effect of non-compliance of solder characteristic on the PCB performance
- KU8.** setting of re-flow machine chamber temperature and PCB carrying belt speed to meet the desired characteristic.
- KU9.** effects of dry-solder, cracked joints, voids, uneven reflow and delamination of PCB

### Generic Skills (GS)

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

- GS1.** read and interpret necessary documents
- GS2.** read and understand manuals, requirement documents, operational health and safety instructions, memos, reports etc.
- GS3.** read and comprehend/understand material specifications
- GS4.** communicate with colleagues, peers and supervisor
- GS5.** liaise and coordinate with third party vendors/other stakeholders

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Preparing the reflow machine</i>	<b>15</b>	<b>33</b>	-	<b>8</b>
<b>PC1.</b> interpret solder paste parameters from the datasheet and suggested parameters from re-flow machine	3	8	-	2
<b>PC2.</b> demonstrate loading of parameters in the re-flow machine	2	9	-	2
<b>PC3.</b> demonstrate passing a sample PCB through the re-flow machine, with reading being recorded using thermal probes	5	9	-	3
<b>PC4.</b> match the readings with the desired outcome and undertake corrective settings	5	7	-	1
<i>Re-flow operation on the PCB and its QA checks</i>	<b>10</b>	<b>27</b>	-	<b>7</b>
<b>PC5.</b> undertake setting of machines is set as per the parameters ascertained during the preparatory process	3	8	-	2
<b>PC6.</b> prepare and pass the loaded PCB (with solder and components placed) through the re-flow machine	2	7	-	2
<b>PC7.</b> safely remove the PCB at the end of the cycle	1	4	-	1
<b>PC8.</b> check for any dry solder, ascertain even reflow, tombstone, de-lamination, misalignment and/or disturbed components and any other damage to PCB	4	8	-	2
<b>NOS Total</b>	<b>25</b>	<b>60</b>	-	<b>15</b>



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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N2505
<b>NOS Name</b>	Re-flow soldering on Telecom Boards
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Handset
<b>Occupation</b>	Communication Electronics
<b>NSQF Level</b>	4
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	24/02/2025
<b>NSQC Clearance Date</b>	24/02/2022

## Qualification Pack

# TEL/N2502: Cleaning and Inspection of Telecom Boards

## Description

This OS unit is about cleaning and inspection of completed telecom boards.

## Scope

The scope covers the following :

- Cleaning of telecom boards
- Inspection - Quality checks and assurance

## Elements and Performance Criteria

### *Cleaning of telecom boards*

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

- PC1.** demonstrate ability to clean the board from flux residues, white patches and/or powder, using correct and specified solvent
- PC2.** operate vapor de-greaser (boil, rinse, vapourize and dry) to clean the boards
- PC3.** demonstrate safe packaging and storage of telecom boards, using the specified wrapping material

### *Inspection - qualitychecks and assurance*

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

- PC4.** demonstrate ability to check telecom boards for any missing components, wrongly mounted components (location, value) or improper placement, vis-vis the specifications
- PC5.** demonstrate ability to check the telecom boards for soldering workmanship and defects, proper placement of board identifier, adherence to specifications, conformal coatings
- PC6.** demonstrate complaint handling and escalation processes
- PC7.** undertake checks of shop floor with respect to adherence to the processes and parameters (temperature, humidity)

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** work/project management concepts and applications
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** escalation matrix for reporting identified incidents, issues and/or emergencies e.g. system failures, fire and power failures
- KU4.** records to be maintained and implications of non-maintenance of the same
- KU5.** Safety Health and Environment (SHE) and Occupational Health and Safety (OHS) guidelines and regulations as per company norms
- KU6.** use of cleaning chemicals/solvents for PCBs
- KU7.** process of cleaning

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- KU8.** use of vapour de freezer equipment for PCB cleaning
- KU9.** QA/QC parameters relating to the manual soldering
- KU10.** IPC standards of soldering

### Generic Skills (GS)

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

- GS1.** read and interpret necessary documents
- GS2.** read and understand manuals, requirement documents, operational health and safety instructions, memos, reports etc.
- GS3.** read and comprehend/understand material specifications
- GS4.** communicate with colleagues, peers and supervisor
- GS5.** liaise and coordinate with third party vendors/other stakeholders

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Cleaning of telecom boards</i>	<b>10</b>	<b>29</b>	-	<b>4</b>
<b>PC1.</b> demonstrate ability to clean the board from flux residues, white patches and/or powder, using correct and specified solvent	3	10	-	1
<b>PC2.</b> operate vapor de-greaser (boil, rinse, vapourize and dry) to clean the boards	3	9	-	1
<b>PC3.</b> demonstrate safe packaging and storage of telecom boards, using the specified wrapping material	4	10	-	2
<i>Inspection - qualitychecks and assurance</i>	<b>20</b>	<b>31</b>	-	<b>6</b>
<b>PC4.</b> demonstrate ability to check telecom boards for any missing components, wrongly mounted components (location, value) or improper placement, vis-vis the specifications	7	7	-	2
<b>PC5.</b> demonstrate ability to check the telecom boards for soldering workmanship and defects, proper placement of board identifier, adherence to specifications, conformal coatings	6	9	-	2
<b>PC6.</b> demonstrate complaint handling and escalation processes	3	7	-	1
<b>PC7.</b> undertake checks of shop floor with respect to adherence to the processes and parameters (temperature, humidity)	4	8	-	1
<b>NOS Total</b>	<b>30</b>	<b>60</b>	-	<b>10</b>

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N2502
<b>NOS Name</b>	Cleaning and Inspection of Telecom Boards
<b>Sector</b>	Telecom
<b>Sub-Sector</b>	Handset
<b>Occupation</b>	Communication Electronics
<b>NSQF Level</b>	4
<b>Credits</b>	3
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	24/02/2025
<b>NSQC Clearance Date</b>	24/02/2022

## Qualification Pack

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

## Description

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

## Scope

The scope covers the following :

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

## Elements and Performance Criteria

### *Perform work as per quality standards*

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

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

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

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

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

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- 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

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

## Generic Skills (GS)

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

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



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform work as per quality standards</i>	<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	-	-

**Qualification Pack**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> participate regularly in fire drills or other safety related workshops organised by the company	1	3	-	-
<b>PC14.</b> report any hazard outside the individual's authority to the relevant person in line with organisational procedures and warn others who may be affected	1	3	-	-
<b>PC15.</b> maintain appropriate posture while sitting/standing for long hours	1	1	-	-
<b>PC16.</b> handle heavy and hazardous materials with care, while maintaining appropriate posture	1	1	-	-
<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	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC26.</b> optimize use of electricity/energy in various tasks/activities/processes	1	3	-	1
<b>PC27.</b> perform periodic checks of the functioning of the equipment/machine and rectify wherever required	1	3	-	1
<b>PC28.</b> report malfunctioning and lapses in maintenance of equipment	1	2	-	-
<b>PC29.</b> use electrical equipment and appliances properly	1	2	-	-
<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>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TEL/N9101
<b>NOS Name</b>	Organize 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>	2.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	24/02/2025
<b>NSQC Clearance Date</b>	24/02/2022

## Qualification Pack

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

## Description

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

## Scope

The scope covers the following :

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

## Elements and Performance Criteria

### *Interact effectively with superiors*

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

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

### *Interact effectively with colleagues and customers*

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

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

### *Respect differences of gender and ability*

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

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

## Knowledge and Understanding (KU)

## Qualification Pack

The individual on the job needs to know and understand:

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

## Generic Skills (GS)

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

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

**Qualification Pack**
**Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact effectively with superiors</i>	<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

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> encourage appropriate behavior and conduct with people across gender	2	5	-	1
<b>PC14.</b> assist team members with disability in overcoming any challenges faced in work	3	4	-	1
<b>PC15.</b> practice appropriate verbal and non-verbal communication while interacting with People with Disability (PWD)	2	4	-	1
<b>PC16.</b> ensure equal participation of the people across genders in discussions	2	6	-	-
<b>NOS Total</b>	<b>25</b>	<b>65</b>	<b>-</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>	2.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	24/02/2025
<b>NSQC Clearance Date</b>	24/02/2022

## Qualification Pack

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

#### Description

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

#### Scope

The scope covers the following :

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

#### Elements and Performance Criteria

##### *Introduction to Employability Skills*

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

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

##### *Constitutional values - Citizenship*

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

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

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

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

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

##### *Basic English Skills*

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

## Qualification Pack

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

### *Career Development & Goal Setting*

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

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

### *Communication Skills*

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

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

### *Diversity & Inclusion*

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

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

### *Financial and Legal Literacy*

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

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

### *Essential Digital Skills*

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

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

### *Entrepreneurship*

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

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

### *Customer Service*

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

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

## Qualification Pack

**PC28.** follow appropriate hygiene and grooming standards

*Getting ready for apprenticeship & Jobs*

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

**PC29.** create a professional Curriculum vitae (Résumé)

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

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

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

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

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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

**KU2.** various constitutional and personal values

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

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

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

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

**KU7.** about effective communication

**KU8.** POSH Act

**KU9.** Gender sensitivity and inclusivity

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

**KU11.** how to compute income and expenditure

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

**KU13.** different legal rights and laws

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

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

**KU16.** how to identify business opportunities

**KU17.** types and needs of customers

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

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

## Generic Skills (GS)

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

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

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

## Qualification Pack

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

## Qualification Pack

### Assessment Criteria

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

### Qualification Pack

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

### Qualification Pack

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



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	DGT/VSQ/N0102
<b>NOS Name</b>	Employability Skills (60 Hours)
<b>Sector</b>	Cross Sectoral
<b>Sub-Sector</b>	Professional Skills
<b>Occupation</b>	Employability
<b>NSQF Level</b>	4
<b>Credits</b>	2
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	28/04/2025
<b>NSQC Clearance Date</b>	28/04/2022

## 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.

## Qualification Pack

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

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

### Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TEL/N2503.Screen Printing of Telecom Boards	20	65	-	15	100	15
TEL/N2504.Component Placement on Telecom Boards	25	55	-	20	100	15
TEL/N2505.Re-flow soldering on Telecom Boards	25	60	-	15	100	15
TEL/N2502.Cleaning and Inspection of Telecom Boards	30	60	-	10	100	15
TEL/N9101.Organize Work and Resources as per Health and Safety Standards	30	60	-	10	100	15
TEL/N9102.Interact Effectively with Team Members and Customers	25	65	-	10	100	15
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
<b>Total</b>	<b>175</b>	<b>395</b>	<b>-</b>	<b>80</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

## 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.