









# Helper - Construction Laboratory and Field Technician

QP Code: CON/Q0401

Version: 3.0

NSQF Level: 2

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### **CON/Q0401: Helper - Construction Laboratory and Field Technician**

#### **Brief Job Description**

A Helper - Construction Laboratory and field Technician is responsible for assisting in the identification of testing tools and equipment, handling and storing test samples, extracting samples from fields, safe shifting of samples to the laboratory, sample preparation, and providing support in the testing of construction materials including cement, sand, aggregate, bitumen, concrete, bricks, and concrete blocks.

#### **Personal Attributes**

The individual should be physically fit and able to work in varying locations in conditions. The individual should be team-oriented and able to work as per the given instructions.

#### **Applicable National Occupational Standards (NOS)**

#### **Compulsory NOS:**

- 1. CON/N0401: Identify and upkeep construction materials, testing tools and equipment
- 2. CON/N0402: Handle and store construction material test sample at the laboratory
- 3. CON/N0403: Collect test sample from field and assist in material testing at site laboratory
- 4. CON/N8001: Work effectively in a team to deliver desired results at the workplace
- 5. <u>CON/N9001: Work according to personal health, safety and environment protocols at construction</u> site
- 6. DGT/VSQ/N0101: Employability Skills (30 Hours)

#### **Qualification Pack (QP) Parameters**

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Quality Assurance and Quality Control
Country	India
NSQF Level	2
Credits	9









Aligned to NCO/ISCO/ISIC Code	NCO-2015/9313.0601
Minimum Educational Qualification & Experience	No formal education prescribed OR Ability to read and write
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	30/04/2025
NSQC Approval Date	31/03/2022
Version	3.0
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NQR Version	3.0









# CON/N0401: Identify and upkeep construction materials, testing tools and equipment

#### **Description**

This unit describes the skills and knowledge required to identify and upkeep the construction materials, testing tools, and equipment required for quality testing as per instructions and under close supervision.

#### Scope

The scope covers the following:

• Perform identification and upkeep of construction materials, testing tools and equipment

#### **Elements and Performance Criteria**

#### Perform identification and upkeep of construction materials, testing tools and equipment

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

- **PC1.** identify construction materials such as cement, fine and coarse aggregate, bricks, steel, bitumen, admixtures, concrete blocks, paver block, timber, plywood & steel reinforcement bar etc.
- **PC2.** identify testing tools and accessories such as measuring jar, gauging trowel, measurement tape, metal scale, scoop, tray, tamping rod, stop watch, brushes, funnel, thermometer, Vernier calipers, IS sieves of different size, trowel, spade, pickaxe, vibrator etc.
- **PC3.** identify apparatus and equipment required for cement and concrete testing such as Vicat apparatus & accessories, GI Sieves, Digital weighing balance drying oven and cube moulds, compression testing machine, flow table, laboratory concrete mixer, slump test cone etc.
- **PC4.** identify apparatus and instruments required for soil testing such as hydrometer, standard sieves of different size, compaction test apparatus, rapid moisture content meter, CBR testing machine, liquid & plasticity limit test apparatus
- **PC5.** identify apparatus and instruments required for aggregate testing such as flakiness gauge, elongation gauge, ring and ball apparatus, pycnometer, impact value test apparatus, crushing value test apparatus & Los Angeles abrasion test apparatus
- **PC6.** identify apparatus and instruments required for bitumen testing such as penetrometer, bitumen compactor, Marshall stability test apparatus
- **PC7.** identify apparatus instruments, chemicals required for water testing
- **PC8.** clean, inspect and care for the construction materials, testing tools and equipment used for quality testing.

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

The individual on the job needs to know and understand:

**KU1.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms









- **KU2.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- **KU3.** service request procedures for tools, materials, and equipment as per organizational norms
- **KU4.** procedure for maintenance of tools and equipment
- **KU5.** different type of construction materials and their testing
- **KU6.** storing and handling of construction materials
- **KU7.** name of tools and equipment used for testing construction material such as cement, fine and coarse aggregate, bricks, steel, bitumen, admixtures, concrete blocks, paver block, concrete cubes, timber, plywood & steel, reinforcement bar
- KU8. upkeep of tools and equipment
- **KU9.** the nomenclature of various parts of the equipment
- KU10. prevention techniques of equipment from dust and heat

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

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

- **GS1.** write in one or more language, preferably in the local language of the site
- **GS2.** read instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- **GS3.** speak in one or more language, preferably in one of the local languages of the site
- **GS4.** communicate orally and effectively with team members
- **GS5.** analyze the safety aspect of the workplace
- **GS6.** plan self-work to achieve productivity as per the direction /close supervision of superiors
- **GS7.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS8. identify any violation of safety norms during the work









# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Perform identification and upkeep of construction materials, testing tools and equipment	30	70	-	-
<b>PC1.</b> identify construction materials such as cement, fine and coarse aggregate, bricks, steel, bitumen, admixtures, concrete blocks, paver block, timber, plywood & steel reinforcement bar etc.	-	-	-	-
<b>PC2.</b> identify testing tools and accessories such as measuring jar, gauging trowel, measurement tape, metal scale, scoop, tray, tamping rod, stop watch, brushes, funnel, thermometer, Vernier calipers, IS sieves of different size, trowel, spade, pickaxe, vibrator etc.	-	-	-	-
PC3. identify apparatus and equipment required for cement and concrete testing such as Vicat apparatus & accessories, GI Sieves, Digital weighing balance drying oven and cube moulds, compression testing machine, flow table, laboratory concrete mixer, slump test cone etc.	-	-	-	-
<b>PC4.</b> identify apparatus and instruments required for soil testing such as hydrometer, standard sieves of different size, compaction test apparatus, rapid moisture content meter, CBR testing machine, liquid & plasticity limit test apparatus	-	-	-	-
<b>PC5.</b> identify apparatus and instruments required for aggregate testing such as flakiness gauge, elongation gauge, ring and ball apparatus, pycnometer, impact value test apparatus, crushing value test apparatus & Los Angeles abrasion test apparatus	-	-	-	-
<b>PC6.</b> identify apparatus and instruments required for bitumen testing such as penetrometer, bitumen compactor, Marshall stability test apparatus	-	-	-	-
<b>PC7.</b> identify apparatus ,instruments, chemicals required for water testing	-	-	-	-
<b>PC8.</b> clean, inspect and care for the construction materials, testing tools and equipment used for quality testing.	-	-	-	-









Assessment Criteria for Outcomes	Theory	Practical	Project	Viva
	Marks	Marks	Marks	Marks
NOS Total	30	70	-	-









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0401
NOS Name	Identify and upkeep construction materials, testing tools and equipment
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Quality Assurance and Quality Control
NSQF Level	2
Credits	1
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022









# **CON/N0402: Handle and store construction material test sample at the laboratory**

#### **Description**

This unit describes the skills and knowledge required for effective material handling & storing of test samples in the lab as per instructions under close supervision.

#### Scope

The scope covers the following:

• Handle and store construction material for testing at the laboratory

#### **Elements and Performance Criteria**

#### Handle and store construction material for testing at the laboratory

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

- **PC1.** follow instructed methods/set guidelines for collection and handling of material samples such as cement, steel, sand, aggregate, soil, admixtures, brick, concrete blocks and distilled water
- PC2. store and stack inflammable material separately as per standard practices/instructions
- **PC3.** handle loose and fluid materials like chemicals, form-oil & admixtures as per standard practices/ instructions
- PC4. follow specified procedure for sampling, packing and tagging of materials for testing
- **PC5.** follow specific procedure for storing and stacking of material samples

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

The individual on the job needs to know and understand:

- **KU1.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms
- **KU2.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- **KU3.** service request procedures for tools, materials and equipment as per organizational norms
- **KU4.** procedure for maintenance of tools and equipment
- **KU5.** use of tools and equipment for testing of construction material
- **KU6.** handling and stacking of tools, equipment, hazardous materials, and chemicals
- **KU7.** storing, handling and labeling of construction material samples such as soil, aggregates, concrete, bricks, steel, bitumen, admixtures, timber, plywood & steel reinforcement bar

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

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









- **GS1.** write in one or more language, preferably in the local language of the site
- **GS2.** read various, sign boards, safety rules , safety tags and instructions related to exit routes during emergency at the workplace
- GS3. speak in one or more language, preferably in one of the local languages of the site
- **GS4.** communicate orally and effectively with team members
- **GS5.** analyze the safety aspect of the workplace
- GS6. plan work to achieve productivity as per the direction /close supervision of superiors
- **GS7.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- **GS8.** evaluate the complexity of the tasks
- GS9. identify any violation of safety norms during the work









# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Handle and store construction material for testing at the laboratory	30	70	-	-
<b>PC1.</b> follow instructed methods/set guidelines for collection and handling of material samples such as cement, steel, sand, aggregate, soil, admixtures, brick, concrete blocks and distilled water	-	-	-	-
<b>PC2.</b> store and stack inflammable material separately as per standard practices/instructions	-	-	-	-
<b>PC3.</b> handle loose and fluid materials like chemicals, form-oil & admixtures as per standard practices/ instructions	-	-	-	-
<b>PC4.</b> follow specified procedure for sampling, packing and tagging of materials for testing	-	-	-	-
<b>PC5.</b> follow specific procedure for storing and stacking of material samples	-	-	-	-
NOS Total	30	70	-	-









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0402
NOS Name	Handle and store construction material test sample at the laboratory
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Quality Assurance and Quality Control
NSQF Level	2
Credits	2
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022









# CON/N0403: Collect test sample from field and assist in material testing at site laboratory

#### **Description**

This unit describes the skills and knowledge required to collect, prepare test samples, and support in construction materials testing at site and in site laboratory as per instructions and under close supervision

#### Scope

The scope covers the following:

- Collect/extract soil, concrete, and bitumen samples from the field.
- Prepare test samples, tools, and test apparatus for cement, concrete, bricks, and aggregates testing and provide support in testing
- Prepare test samples, tools, and test apparatus for bitumen testing and provide support in testing.
- Prepare test samples, tools, and test apparatus for soil testing and provide support in testing.
- Perform housekeeping and dispose waste.

#### **Elements and Performance Criteria**

#### Collect/extract soil, concrete and bitumen samples from field

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

- **PC1.** extract soil samples using core cutters , pack & label the sample as per standard procedure and transport it to test laboratory
- **PC2.** collect hot bitumen sample from construction site as per instructions, pack & label the sample as per standard procedure and transport it to test laboratory
- **PC3.** collect and cast concrete cube samples at site as per standard procedure and instructions

Prepare test samples, tools, and test apparatus for cement, concrete, bricks, and aggregates testing and provide support in testing

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

- **PC4.** prepare all tools and accessories required for cement, concrete, brick and aggregate testing for sample preparation and testing as per instructions
- **PC5.** collect the required/ instructed quantity of sample of cement, concrete, brick and aggregate as per instructions
- **PC6.** measure instructed quantity of sample to be tested in the site laboratory
- **PC7.** cast cement and concrete cube samples in site laboratory as per standard procedure and instructions
- **PC8.** prepare cement test samples and provide support in slump test, consistency test ,initial & final setting time test, fineness test and soundness test as per instructions
- **PC9.** carry out sieve analysis and prepare test samples for specific gravity, crushing value, impact value test, abrasion value for coarse aggregate as per instructions
- **PC10.** provide support in carrying out water absorption test and compressive strength test of cement cube, concrete cube, brick, concrete block & paver block

Prepare test samples, tools, and test apparatus for bitumen testing and provide support in testing.









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

- **PC11.** prepare all required tools and accessories of bitumen testing for sample preparation and testing as per instructions
- PC12. collect the required/ instructed quantity of sample of bitumen as per instructions
- **PC13.** measure instructed quantity of bitumen sample to be tested in site laboratory
- **PC14.** prepare bitumen test sample and provide support in content test, penetration test, specific gravity test, softening point test, flash & fire point, Marshall stability test of bitumen mixture as per instructions

Prepare test samples, tools, and test apparatus for soil testing and provide support in testing.

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

- **PC15.** prepare all required tools and accessories of soil testing for sample preparation and testing as per instructions
- **PC16.** collect the required/ instructed quantity of sample of soil as per instructions
- **PC17.** measure instructed quantity of sample to be tested in site laboratory
- **PC18.** prepare soil test samples and provide support in test for specific gravity, bulk density, moisture content, Atterberg limits, and silt content of soil as per instructions

#### Perform housekeeping and dispose waste

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

- **PC19.** clean tools, apparatus, instrument, and accessories and place them at the appropriate location after use
- PC20. upkeep all tools, apparatus, instrument, and equipment as per requirement
- **PC21.** dispose the tested construction materials as per instructions

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

The individual on the job needs to know and understand:

- **KU1.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms
- **KU2.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- **KU3.** service request procedures for tools, materials and equipment as per organizational norms
- **KU4.** storing and handling of construction material samples
- **KU5.** how to prepare test sample for cements, concrete, sand, aggregate, bitumen, soil
- **KU6.** how to carry out sampling of concrete, soil, sand in site
- KU7. visual/physical checking of cement, brick ,concrete block, sand
- **KU8.** importance of checking construction material prior to use
- **KU9.** use of tools and equipment for testing of construction material
- **KU10.** handling technique of tools and equipment
- **KU11.** upkeep, repair, and maintenance of tools and equipment
- **KU12.** prevention of equipment from dust and heat
- **KU13.** the calibration of machines and equipment for validation
- KU14. reading of gauges and meters along with the least count









#### **KU15.** disposal of tested material in appropriate manner

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

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

- **GS1.** write in one or more language, preferably in the local language of the site
- **GS2.** read various, sign boards, safety rules , safety tags and instructions related to exit routes during emergency at the workplace
- GS3. speak in one or more language, preferably in one of the local languages of the site
- **GS4.** communicate orally and effectively with team members
- **GS5.** analyze the safety aspect of the workplace
- GS6. plan work to achieve productivity as per the direction /close supervision of superiors
- **GS7.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- **GS8.** identify any violation of safety norms during the work









# **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Collect/extract soil , concrete and bitumen samples from field	5	15	-	-
<b>PC1.</b> extract soil samples using core cutters , pack & label the sample as per standard procedure and transport it to test laboratory	-	-	-	-
<b>PC2.</b> collect hot bitumen sample from construction site as per instructions, pack & label the sample as per standard procedure and transport it to test laboratory	-	-	-	-
<b>PC3.</b> collect and cast concrete cube samples at site as per standard procedure and instructions	-	-	-	-
Prepare test samples, tools, and test apparatus for cement, concrete, bricks, and aggregates testing and provide support in testing	5	15	-	-
<b>PC4.</b> prepare all tools and accessories required for cement, concrete, brick and aggregate testing for sample preparation and testing as per instructions	-	-	-	-
<b>PC5.</b> collect the required/ instructed quantity of sample of cement, concrete, brick and aggregate as per instructions	-	-	-	-
<b>PC6.</b> measure instructed quantity of sample to be tested in the site laboratory	-	-	-	-
<b>PC7.</b> cast cement and concrete cube samples in site laboratory as per standard procedure and instructions	-	-	-	-
<b>PC8.</b> prepare cement test samples and provide support in slump test, consistency test, initial & final setting time test, fineness test and soundness test as per instructions	-	-	-	-
<b>PC9.</b> carry out sieve analysis and prepare test samples for specific gravity, crushing value, impact value test, abrasion value for coarse aggregate as per instructions	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> provide support in carrying out water absorption test and compressive strength test of cement cube, concrete cube, brick, concrete block & paver block	-	-	-	-
Prepare test samples, tools, and test apparatus for bitumen testing and provide support in testing.	5	10	-	-
<b>PC11.</b> prepare all required tools and accessories of bitumen testing for sample preparation and testing as per instructions	-	-	-	-
<b>PC12.</b> collect the required/ instructed quantity of sample of bitumen as per instructions	-	-	-	-
<b>PC13.</b> measure instructed quantity of bitumen sample to be tested in site laboratory	-	-	-	-
<b>PC14.</b> prepare bitumen test sample and provide support in content test, penetration test, specific gravity test, softening point test, flash & fire point, Marshall stability test of bitumen mixture as per instructions	-	-	-	-
Prepare test samples, tools, and test apparatus for soil testing and provide support in testing.	10	20	-	-
<b>PC15.</b> prepare all required tools and accessories of soil testing for sample preparation and testing as per instructions	-	-	-	-
<b>PC16.</b> collect the required/ instructed quantity of sample of soil as per instructions	-	-	-	-
<b>PC17.</b> measure instructed quantity of sample to be tested in site laboratory	-	-	-	-
<b>PC18.</b> prepare soil test samples and provide support in test for specific gravity, bulk density, moisture content, Atterberg limits, and silt content of soil as per instructions	-	-	-	-
Perform housekeeping and dispose waste	5	10	-	-
<b>PC19.</b> clean tools, apparatus, instrument, and accessories and place them at the appropriate location after use	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC20.</b> upkeep all tools, apparatus, instrument, and equipment as per requirement	-	-	-	-
<b>PC21.</b> dispose the tested construction materials as per instructions	-	-	-	-
NOS Total	30	70	-	-









# **National Occupational Standards (NOS) Parameters**

NOS Code	CON/N0403
NOS Name	Collect test sample from field and assist in material testing at site laboratory
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Quality Assurance and Quality Control
NSQF Level	2
Credits	3
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022









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

#### **Description**

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

#### Scope

The scope covers the following:

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

### **Elements and Performance Criteria**

#### Introduction to Employability Skills

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

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

#### Constitutional values - Citizenship

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

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

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

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

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

#### Basic English Skills

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

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

#### Communication Skills

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

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

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









#### **Diversity & Inclusion**

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

- **PC7.** communicate and behave appropriately with all genders and PwD
- **PC8.** report any issues related to sexual harassment

#### Financial and Legal Literacy

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

- **PC9.** use various financial products and services safely and securely
- **PC10.** calculate income, expenses, savings etc.
- **PC11.** approach the concerned authorities for any exploitation as per legal rights and laws

#### Essential Digital Skills

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

- PC12. operate digital devices and use its features and applications securely and safely
- **PC13.** use internet and social media platforms securely and safely

#### Entrepreneurship

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

- PC14. identify and assess opportunities for potential business
- PC15. identify sources for arranging money and associated financial and legal challenges

#### **Customer Service**

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

- **PC16.** identify different types of customers
- **PC17.** identify customer needs and address them appropriately
- **PC18.** follow appropriate hygiene and grooming standards

#### Getting ready for apprenticeship & Jobs

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

- PC19. create a basic biodata
- **PC20.** search for suitable jobs and apply
- PC21. identify and register apprenticeship opportunities as per requirement

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

The individual on the job needs to know and understand:

- **KU1.** need for employability skills
- **KU2.** various constitutional and personal values
- **KU3.** different environmentally sustainable practices and their importance
- **KU4.** Twenty first (21st) century skills and their importance
- **KU5.** how to use basic spoken English language
- **KU6.** Do and dont of effective communication
- **KU7.** inclusivity and its importance
- KU8. different types of disabilities and appropriate communication and behaviour towards PwD
- **KU9.** different types of financial products and services









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

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

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

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









# **Assessment Criteria**

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









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









#### **National Occupational Standards (NOS) Parameters**

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	30/04/2025
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# Assessment Guidelines and Assessment Weightage

#### **Assessment Guidelines**

- 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC)/ Element 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 PC/ Element.
- 2. The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
- 3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
- 4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
- 5. The passing percentage for each QP will be 50%. To pass the Qualification Pack, every trainee should score a minimum of 50% individually in each NOS.
- 6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.









- 7. The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
- 8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
- 9. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified timeframe set by SSC.
- 10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

Minimum Aggregate Passing % at QP Level: 50

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

#### **Assessment Weightage**

#### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0401.Identify and upkeep construction materials, testing tools and equipment	30	70	-	-	100	20
CON/N0402.Handle and store construction material test sample at the laboratory	30	70	-	-	100	30
CON/N0403.Collect test sample from field and assist in material testing at site laboratory	30	70	-	-	100	20
CON/N8001.Work effectively in a team to deliver desired results at the workplace	30	70	-	-	100	10
CON/N9001.Work according to personal health, safety and environment protocols at construction site	30	70	-	-	100	10
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	10
Total	170	380	-	-	550	100









# **Acronyms**

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
PPE	Personal Protective Equipment
EHS	Environment, health and safety









# Glossary

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









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