









# BIM Manager - Construction

QP Code: CON/Q2108

Version: 1.0

NSQF Level: 6.5

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## **Contents**

| CON/Q2108: BIM Manager - Construction                   |      |
|---|------|
| Brief Job Description                                   | 3    |
| Applicable National Occupational Standards (NOS)        |      |
| Compulsory NOS  | 3    |
| Qualification Pack (QP) Parameters                      | 3    |
| CON/N2113: Manage bidding for BIM construction projects | 5    |
| CON/N2114: Manage the BIM construction process          | 9    |
| CON/N9003: Manage health and safety at the workplace    | 16   |
| DGT/VSQ/N0103: Employability Skills (90 Hours)          | 21   |
| Assessment Guidelines and Weightage                     | . 29 |
| Assessment Guidelines                                   | . 29 |
| Assessment Weightage                                    | . 30 |
| Acronyms  | . 31 |
| Glossary  | . 32 |









## CON/Q2108: BIM Manager - Construction

## **Brief Job Description**

A BIM Manager - Construction is responsible for the planning, delivery and efficient management of the BIM Execution Plan (BEP). The individual manages different professionals, such as BIM Coordinators and BIM Modelers for the delivery of BIM construction projects and also acts as the intermediary between designers, clients and architects.

## **Personal Attributes**

The individual should have excellent organizational, leadership, business management and problemsolving skills. The person should have a proactive approach with attention to detail. The individual should also have excellent verbal and written communication skills.

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

## **Compulsory NOS:**

- 1. CON/N2113: Manage bidding for BIM construction projects
- 2. CON/N2114: Manage the BIM construction process
- 3. CON/N9003: Manage health and safety at the workplace
- 4. DGT/VSQ/N0103: Employability Skills (90 Hours)

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

| Sector                        | Construction                                |
|-------------------------------|---|
| Sub-Sector                    | Real Estate and Infrastructure construction |
| Occupation                    | Building Information Modeling               |
| Country                       | India                                       |
| NSQF Level                    | 6.5   |
| Credits                       | 22  |
| Aligned to NCO/ISCO/ISIC Code | NCO-2015/2142.9900                          |









| Minimum Educational Qualification & Experience       | Pursuing 2nd year of PG (after 3 year UG Dregree) OR PG in any field (Completed 2-year PG degree in Relevant Field (after 4 year UG in Relevant Field)) OR Completed 4 year UG program with 1 Year of experience Relevant Field OR Completed 3 year UG degree with 2 Years of experience Relevant Field OR Completed 2nd year diploma after 12th (in any field) with 3 Years of experience Relevant Field OR Previous relevant Qualification of NSQF Level (6 with 1.5 Years of Relevant Field Experience) OR Previous relevant Qualification of NSQF Level (5.5 with 3 years of Relevant Field Experience) |
|--|---|
| Minimum Level of Education for<br>Training in School |   |
| Pre-Requisite License or Training                    | NA  |
| Minimum Job Entry Age                                | 21 Years  |
| Last Reviewed On                                     | NA  |
| Next Review Date                                     | 31/08/2026  |
| NSQC Approval Date                                   | 31/08/2023  |
| Version  | 1.0   |
| Reference code on NQR                                | QG-6.5-CO-00781-2023-V1-CSDCI   |
| NQR Version  | 1   |









## CON/N2113: Manage bidding for BIM construction projects

## **Description**

This OS unit is about managing the bidding process for BIM construction projects, including the preparation of bidding documents, negotiation with clients and carrying out contract-related documentation.

## Scope

The scope covers the following:

- Manage the bidding process
- Carry out negotiation and documentation

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

#### Manage the bidding process

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

- **PC1.** manage the preparation of bidding documents, providing the appropriate technical information to support the bidding process
- PC2. estimate the requirement of various resources for the delivery of the BIM construction project
- **PC3.** ensure all the applicable fixed and variable costs are considered while calculating the costs for the project delivery
- **PC4.** carry out representations to clients during bidding for BIM construction projects
- **PC5.** ensure the questions and concerns raised by clients are appropriately answered and addressed with the correct and latest information

#### Carry out negotiation and documentation

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

- **PC6.** carry out negotiations with clients to win BIM construction projects in profitable deals for the organization
- **PC7.** carry out appropriate documentation as per the organizational policies concerning the BIM construction project contracts
- **PC8.** ensure the clients are provided with the necessary information and documents as per the applicable business procedures before commencing the project work

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

The individual on the job needs to know and understand:

- **KU1.** the appropriate documentation required to bid for BIM construction projects
- **KU2.** various resources required for the delivery of BIM construction projects
- **KU3.** the applicable variable and fixed costs
- **KU4.** the practices to be followed for effective presentation to clients and answering their queries
- **KU5.** how to negotiate with clients
- **KU6.** the appropriate documentation to be completed concerning the BIM construction projects









- KU7. different stages of a BIM construction project lifecycle
- **KU8.** BIM project management and relevant BIM coordination activities
- **KU9.** the use of relevant project management software

## **Generic Skills (GS)**

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

- **GS1.** maintain work-related notes and records
- GS2. listen attentively to understand the information/ instructions being shared by the speaker
- **GS3.** read the relevant literature to learn about the latest developments in the field of work
- **GS4.** communicate clearly and politely with co-workers and clients
- **GS5.** coordinate with co-workers to achieve work objectives
- **GS6.** plan and prioritize tasks to ensure timely completion
- **GS7.** identify possible disruptions to work and take appropriate preventive measures
- GS8. take quick decisions to deal with workplace emergencies/ accidents









## **Assessment Criteria**

| Assessment Criteria for Outcomes  | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|---|-----------------|--------------------|------------------|---------------|
| Manage the bidding process  | 15              | 25                 | -                | 5             |
| <b>PC1.</b> manage the preparation of bidding documents, providing the appropriate technical information to support the bidding process                               | -               | -                  | -                | -             |
| <b>PC2.</b> estimate the requirement of various resources for the delivery of the BIM construction project  | -               | -                  | -                | -             |
| <b>PC3.</b> ensure all the applicable fixed and variable costs are considered while calculating the costs for the project delivery                                    | -               | -                  | -                | -             |
| <b>PC4.</b> carry out representations to clients during bidding for BIM construction projects   | -               | -                  | -                | -             |
| <b>PC5.</b> ensure the questions and concerns raised by clients are appropriately answered and addressed with the correct and latest information                      | -               | -                  | -                | -             |
| Carry out negotiation and documentation   | 15              | 35                 | -                | 5             |
| <b>PC6.</b> carry out negotiations with clients to win BIM construction projects in profitable deals for the organization   | -               | -                  | -                | -             |
| <b>PC7.</b> carry out appropriate documentation as per the organizational policies concerning the BIM construction project contracts                                  | -               | -                  | -                | -             |
| <b>PC8.</b> ensure the clients are provided with the necessary information and documents as per the applicable business procedures before commencing the project work | -               | -                  | -                | -             |
| NOS Total   | 30              | 60                 | -                | 10            |









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

| NOS Code            | CON/N2113                                    |
|---------------------|--|
| NOS Name            | Manage bidding for BIM construction projects |
| Sector              | Construction                                 |
| Sub-Sector          | Real Estate and Infrastructure construction  |
| Occupation          | Building Information Modeling                |
| NSQF Level          | 6.5  |
| Credits             | 8  |
| Version             | 1.0  |
| Last Reviewed Date  | 31/08/2023                                   |
| Next Review Date    | 31/08/2026                                   |
| NSQC Clearance Date | 31/08/2023                                   |









## **CON/N2114: Manage the BIM construction process**

## **Description**

This OS unit is about managing the BIM construction process, including the preparation and implementation of the BIM strategy.

## Scope

The scope covers the following:

- Ensure the availability of resources
- Develop the BIM Execution Plan (BEP)
- Manage training and upskilling requirements
- Manage BIM construction activities
- Carry out the appropriate documentation
- Manage training and upskilling needs

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

### Ensure the availability of resources

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

- **PC1.** identify the requirement of various resources for the delivery of the BIM construction project
- **PC2.** arrange the required resources, following the organization's procurement process as applicable
- **PC3.** ensure the availability of required tools and equipment to the BIM construction project team
- **PC4.** manage the purchase of relevant tools and equipment, e.g. BIM software and computer
- **PC5.** coordinate with the Information Technology (IT) team to ensure the effective functioning of IT systems
- **PC6.** manage the tools and software licenses, ensuring the installation and use of the latest version of appropriate BIM software by the BIM construction team

#### Develop the BIM Execution Plan (BEP)

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

- **PC7.** develop the BIM Execution Plan (BEP) for each BIM construction project through coordination with BIM Coordinators
- **PC8.** ensure BIM Execution Plans (BEP) are developed and maintained for each BIM construction project
- **PC9.** ensure correct setting up of BIM projects in the BIM software
- **PC10.** ensure the availability of the BIM profile with the departments and teams in the organization *Manage BIM construction activities*

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

- **PC11.** manage the implementation and execution of organization-wide BIM standards and rules
- **PC12.** lead the implementation of digital information plans and strategies









- **PC13.** identify and ensure the adoption of appropriate best practices in BIM construction activities by the organization
- **PC14.** manage the integration of new technologies in the organization's BIM construction workflows
- **PC15.** manage the BIM construction project budgets, maintaining various expenditures within the budget
- **PC16.** ensure appropriate changes in the BIM model according to the changes on the site
- PC17. carry out the relevant supply chain assessments
- PC18. support the BIM construction project team in project execution
- PC19. ensure timely delivery of BIM Construction projects
- **PC20.** coordinate with planning engineers, Quality Assurance (QA)/ Quality Control (QC) engineers, safety engineers and quality control professionals
- **PC21.** lead the relevant meetings to identify project tasks and resolve issues
- **PC22.** ensure adherence to the applicable and latest codes and standards by the BIM construction team
- PC23. audit the BIM construction project team and identify the areas of non-compliance
- PC24. generate and analyze BIM-based reports for BIM Management solutions

#### Carry out the appropriate documentation

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

- **PC25.** prepare the relevant reports for the stakeholders, e.g. client and BIM Project Head, to measure the implementation of BIM construction projects
- **PC26.** present the reports to the stakeholders and discuss them
- **PC27.** record and implement the feedback of stakeholders

#### Manage training and upskilling needs

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

- **PC28.** identify the need for training or upskilling the BIM construction project team in specific software programs
- **PC29.** organize appropriate training/upskilling sessions for the relevant BIM team members, e.g. BIM software training and monitor their BIM experience levels
- **PC30.** support the BIM construction team members in their mentoring, coaching and career development

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

The individual on the job needs to know and understand:

- **KU1.** the evaluation and development of BIM processes, policies, protocols and workflows
- **KU2.** the importance and process of defining a BIM strategy for effective BIM implementation
- **KU3.** system implementation for communication and data exchange during BIM construction activities to ensure seamless collaboration
- **KU4.** effective people and resource management practices
- **KU5.** the importance of monitoring the BIM processes to identify and implement appropriate improvements









- **KU6.** the use of appropriate software tools to enable the BIM construction team to design, develop and deliver BIM solutions as per the client's needs
- **KU7.** BIM data management processes and applicable data protection requirements
- **KU8.** the BIM construction process
- **KU9.** BIM platforms and coordination of models
- **KU10.** the daily management of BIM project data sets/workflows
- **KU11.** the applicable industry standards in the BIM construction process
- **KU12.** the importance of conducting regular meetings with the stakeholders
- **KU13.** the applicable documentation requirements
- **KU14.** the importance and process of monitoring the models for quality and content throughout the project delivery process and at specific project milestones
- **KU15.** the best practices to be followed in BIM construction
- **KU16.** the benefit of attending conferences, workshops, and seminars on BIM technologies

## **Generic Skills (GS)**

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

- **GS1.** maintain work-related notes and records
- GS2. read the relevant literature to learn about the latest developments in the field of work
- **GS3.** listen attentively to understand the information/ instructions being shared by the speaker
- **GS4.** communicate clearly and politely with co-workers and clients
- GS5. coordinate with co-workers to achieve work objectives
- **GS6.** plan and prioritize tasks to ensure timely completion
- **GS7.** identify possible disruptions to work and take appropriate preventive measures
- GS8. take quick decisions to deal with workplace emergencies/ accidents
- **GS9.** evaluate all possible solutions to a problem to select the best one









## **Assessment Criteria**

| Assessment Criteria for Outcomes   | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|--|-----------------|--------------------|------------------|---------------|
| Ensure the availability of resources   | 6               | 10                 | -                | 2             |
| <b>PC1.</b> identify the requirement of various resources for the delivery of the BIM construction project   | -               | -                  | -                | -             |
| <b>PC2.</b> arrange the required resources, following the organization's procurement process as applicable   | -               | -                  | -                | -             |
| <b>PC3.</b> ensure the availability of required tools and equipment to the BIM construction project team   | -               | -                  | -                | -             |
| <b>PC4.</b> manage the purchase of relevant tools and equipment, e.g. BIM software and computer  | -               | -                  | -                | -             |
| <b>PC5.</b> coordinate with the Information Technology (IT) team to ensure the effective functioning of IT systems   | -               | -                  | -                | -             |
| <b>PC6.</b> manage the tools and software licenses, ensuring the installation and use of the latest version of appropriate BIM software by the BIM construction team | -               | -                  | -                | -             |
| Develop the BIM Execution Plan (BEP)   | 6               | 15                 | -                | 2             |
| <b>PC7.</b> develop the BIM Execution Plan (BEP) for each BIM construction project through coordination with BIM Coordinators  | -               | -                  | -                | -             |
| PC8. ensure BIM Execution Plans (BEP) are developed and maintained for each BIM construction project   | -               | -                  | -                | -             |
| <b>PC9.</b> ensure correct setting up of BIM projects in the BIM software  | -               | -                  | -                | -             |
| <b>PC10.</b> ensure the availability of the BIM profile with the departments and teams in the organization   | -               | -                  | -                | -             |
| Manage BIM construction activities   | 8               | 15                 | -                | 3             |
| <b>PC11.</b> manage the implementation and execution of organization-wide BIM standards and rules  | -               | -                  | -                | -             |









| Assessment Criteria for Outcomes  | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|---|-----------------|--------------------|------------------|---------------|
| PC12. lead the implementation of digital information plans and strategies   | -               | -                  | -                | -             |
| <b>PC13.</b> identify and ensure the adoption of appropriate best practices in BIM construction activities by the organization                              | -               | -                  | -                | -             |
| <b>PC14.</b> manage the integration of new technologies in the organization's BIM construction workflows  | -               | -                  | -                | -             |
| <b>PC15.</b> manage the BIM construction project budgets, maintaining various expenditures within the budget  | -               | -                  | -                | -             |
| <b>PC16.</b> ensure appropriate changes in the BIM model according to the changes on the site   | -               | -                  | -                | -             |
| PC17. carry out the relevant supply chain assessments   | -               | -                  | -                | -             |
| <b>PC18.</b> support the BIM construction project team in project execution   | -               | -                  | -                | -             |
| <b>PC19.</b> ensure timely delivery of BIM Construction projects  | -               | -                  | -                | -             |
| <b>PC20.</b> coordinate with planning engineers, Quality Assurance (QA)/ Quality Control (QC) engineers, safety engineers and quality control professionals | -               | -                  | -                | -             |
| <b>PC21.</b> lead the relevant meetings to identify project tasks and resolve issues  | -               | -                  | -                | -             |
| PC22. ensure adherence to the applicable and latest codes and standards by the BIM construction team  | -               | -                  | -                | -             |
| <b>PC23.</b> audit the BIM construction project team and identify the areas of non-compliance   | -               | -                  | -                | -             |
| <b>PC24.</b> generate and analyze BIM-based reports for BIM Management solutions  | -               | -                  | -                | -             |
| Carry out the appropriate documentation   | 4               | 10                 | -                | 2             |









| Assessment Criteria for Outcomes   | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|--|-----------------|--------------------|------------------|---------------|
| <b>PC25.</b> prepare the relevant reports for the stakeholders, e.g. client and BIM Project Head, to measure the implementation of BIM construction projects         | -               | -                  | -                | -             |
| <b>PC26.</b> present the reports to the stakeholders and discuss them  | -               | -                  | -                | -             |
| <b>PC27.</b> record and implement the feedback of stakeholders   | -               | -                  | -                | -             |
| Manage training and upskilling needs   | 6               | 10                 | -                | 1             |
| <b>PC28.</b> identify the need for training or upskilling the BIM construction project team in specific software programs  | -               | -                  | -                | -             |
| <b>PC29.</b> organize appropriate training/upskilling sessions for the relevant BIM team members, e.g. BIM software training and monitor their BIM experience levels | -               | -                  | -                | -             |
| <b>PC30.</b> support the BIM construction team members in their mentoring, coaching and career development   | -               | -                  | -                | -             |
| NOS Total  | 30              | 60                 | -                | 10            |









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

| NOS Code            | CON/N2114                                   |
|---------------------|---|
| NOS Name            | Manage the BIM construction process         |
| Sector              | Construction                                |
| Sub-Sector          | Real Estate and Infrastructure construction |
| Occupation          | Building Information Modeling               |
| NSQF Level          | 6.5   |
| Credits             | 10  |
| Version             | 1.0   |
| Last Reviewed Date  | 31/08/2023                                  |
| Next Review Date    | 31/08/2026                                  |
| NSQC Clearance Date | 31/08/2023                                  |









## CON/N9003: Manage health and safety at the workplace

## **Description**

This occupational standards unit is about ensuring health and safety at work. This includes personal health and safety and that of the subordinates, as applicable.

## Scope

The scope covers the following:

- Ensure health and safety at work
- Manage workplace emergencies

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

#### Ensure health and safety at work

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

- **PC1.** check and ensure the availability of appropriate and usable Personal Protective Equipment (PPE) at the workplace
- **PC2.** use the appropriate PPE according to the nature of work and ensure other personnel also do the same
- **PC3.** create awareness regarding health and safety practices at work
- **PC4.** follow and promote the appropriate measures to ensure hygiene in the workplace, e.g. regular cleaning and sanitization
- **PC5.** coordinate regular workplace audits to ensure safe working conditions
- **PC6.** identify health and safety hazards at the workplace and take appropriate preventive measures
- **PC7.** report any out-of-authority health and safety issues to the relevant authority for a timely resolution
- **PC8.** identify the instances of non-compliance with the health and safety policies and take appropriate measures, e.g. giving feedback to the relevant personnel

#### Manage workplace emergencies

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

- **PC9.** ensure the availability of the updated first aid kit at the workplace
- **PC10.** ensure prompt and timely medical attention for any injured/ unwell personnel
- **PC11.** arrange for effective training of personnel on emergency procedures
- **PC12.** manage workplace emergencies, such as fire, accidents, disease outbreaks or natural calamities following the organizational policies
- **PC13.** follow the applicable emergency procedures and ensure the personnel also do the same
- **PC14.** ensure the safe use of emergency equipment, e.g. fire extinguishers, according to the manufacturer's instructions
- PC15. arrange for the emergency equipment to be repaired or replaced, as required









**PC16.** maintain records of workplace emergencies and report them to the relevant authority in compliance with the applicable regulatory requirements

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

The individual on the job needs to know and understand:

- **KU1.** the applicable regulations concerning workplace health and safety
- **KU2.** various practices to ensure personal health and safety at the workplace
- **KU3.** the importance of ensuring the use of appropriate at the workplace
- **KU4.** the importance of ensuring that PPE, emergency equipment and first-aid kit at the workplace are up to date and usable condition
- **KU5.** the applicable practices for sanitizing the workplace
- **KU6.** the process of identifying health and safety hazards at the workplace and taking appropriate preventive measures
- **KU7.** the importance of regular workplace audits to ensure safe working conditions
- **KU8.** the appropriate action to be taken to deal with workplace emergencies such as fire, accidents, disease outbreaks or natural calamities
- **KU9.** the process of providing first aid and requesting further medical assistance
- KU10. safe use of the emergency equipment as per the manufacturer's instructions
- **KU11.** the process of reporting workplace emergencies/ accidents to the relevant authority in compliance with the organizational and regulatory requirements

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

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

- **GS1.** maintain the appropriate data and records
- **GS2.** read the appropriate reports and literature concerning the field of work
- **GS3.** communicate professionally with all the stakeholders
- **GS4.** listen attentively to understand the information/ instructions being shared and take appropriate action
- **GS5.** coordinate with co-workers to achieve the work objectives
- **GS6.** plan and execute tasks based on priority
- **GS7.** identify possible disruptions to work and take appropriate mitigation measures
- **GS8.** take prompt action to deal with workplace emergencies and accidents
- **GS9.** evaluate all possible solutions to work-related problems and select the best one
- **GS10.** follow the recommended practices for the timely completion of work and achievement of organizational objectives









## **Assessment Criteria**

| Assessment Criteria for Outcomes   | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|--|-----------------|--------------------|------------------|---------------|
| Ensure health and safety at work   | 25              | 35                 | -                | -             |
| <b>PC1.</b> check and ensure the availability of appropriate and usable Personal Protective Equipment (PPE) at the workplace   | -               | -                  | -                | -             |
| <b>PC2.</b> use the appropriate PPE according to the nature of work and ensure other personnel also do the same  | -               | -                  | -                | -             |
| <b>PC3.</b> create awareness regarding health and safety practices at work   | -               | -                  | -                | -             |
| <b>PC4.</b> follow and promote the appropriate measures to ensure hygiene in the workplace, e.g. regular cleaning and sanitization                                     | -               | -                  | -                | -             |
| <b>PC5.</b> coordinate regular workplace audits to ensure safe working conditions  | -               | -                  | -                | -             |
| <b>PC6.</b> identify health and safety hazards at the workplace and take appropriate preventive measures   | -               | -                  | -                | -             |
| <b>PC7.</b> report any out-of-authority health and safety issues to the relevant authority for a timely resolution   | -               | -                  | -                | -             |
| <b>PC8.</b> identify the instances of non-compliance with the health and safety policies and take appropriate measures, e.g. giving feedback to the relevant personnel | -               | -                  | -                | -             |
| Manage workplace emergencies   | 15              | 25                 | -                | -             |
| <b>PC9.</b> ensure the availability of the updated first aid kit at the workplace  | -               | -                  | -                | -             |
| <b>PC10.</b> ensure prompt and timely medical attention for any injured/ unwell personnel  | -               | -                  | -                | -             |
| <b>PC11.</b> arrange for effective training of personnel on emergency procedures   | -               | -                  | -                | -             |









| Assessment Criteria for Outcomes   | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|--|-----------------|--------------------|------------------|---------------|
| <b>PC12.</b> manage workplace emergencies, such as fire, accidents, disease outbreaks or natural calamities following the organizational policies          | -               | -                  | -                | -             |
| <b>PC13.</b> follow the applicable emergency procedures and ensure the personnel also do the same  | -               | -                  | -                | -             |
| <b>PC14.</b> ensure the safe use of emergency equipment, e.g. fire extinguishers, according to the manufacturer's instructions                             | -               | -                  | -                | -             |
| <b>PC15.</b> arrange for the emergency equipment to be repaired or replaced, as required   | -               | -                  | -                | -             |
| <b>PC16.</b> maintain records of workplace emergencies and report them to the relevant authority in compliance with the applicable regulatory requirements | -               | -                  | -                | -             |
| NOS Total  | 40              | 60                 | -                | -             |









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

| NOS Code            | CON/N9003                                 |
|---------------------|---|
| NOS Name            | Manage health and safety at the workplace |
| Sector              | Construction                              |
| Sub-Sector          | Generic                                   |
| Occupation          | Generic Safety                            |
| NSQF Level          | 5   |
| Credits             | 1   |
| Version             | 1.0                                       |
| Last Reviewed Date  | 31/08/2023                                |
| Next Review Date    | 31/08/2026                                |
| NSQC Clearance Date | 31/08/2023                                |









## **DGT/VSQ/N0103: Employability Skills (90 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.** understand the significance of employability skills in meeting the current job market requirement and future of work
- **PC2.** identify and explore learning and employability relevant portals
- **PC3.** research about the different industries, job market trends, latest skills required and the available opportunities

### Constitutional values - Citizenship

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

- **PC4.** 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.
- **PC5.** follow environmentally sustainable practices

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

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

**PC6.** recognize the significance of 21st Century Skills for employment









- **PC7.** 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
- **PC8.** adopt a continuous learning mindset for personal and professional development *Basic English Skills*

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

- **PC9.** use basic English for everyday conversation in different contexts, in person and over the telephone
- **PC10.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- **PC11.** 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:

- PC12. identify career goals based on the skills, interests, knowledge, and personal attributes
- PC13. prepare a career development plan with short- and long-term goals

#### Communication Skills

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

- **PC14.** follow verbal and non-verbal communication etiquette while communicating in professional and public settings
- **PC15.** use active listening techniques for effective communication
- **PC16.** communicate in writing using appropriate style and format based on formal or informal requirements
- **PC17.** work collaboratively with others in a team

#### Diversity & Inclusion

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

- PC18. communicate and behave appropriately with all genders and PwD
- **PC19.** 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:

- **PC20.** identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.
- **PC21.** carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook
- **PC22.** identify common components of salary and compute income, expenses, taxes, investments
- **PC23.** 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:

- **PC24.** operate digital devices and use their features and applications securely and safely
- **PC25.** carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.
- **PC26.** display responsible online behaviour while using various social media platforms









- PC27. create a personal email account, send and process received messages as per requirement
- **PC28.** carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications
- **PC29.** utilize virtual collaboration tools to work effectively

### Entrepreneurship

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

- **PC30.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- **PC31.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- **PC32.** 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:

- PC33. identify different types of customers and ways to communicate with them
- PC34. identify and respond to customer requests and needs in a professional manner
- **PC35.** use appropriate tools to collect customer feedback
- **PC36.** follow appropriate hygiene and grooming standards

### Getting ready for apprenticeship & Jobs

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

- **PC37.** create a professional Curriculum vitae (Résumé)
- **PC38.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
- **PC39.** apply to identified job openings using offline /online methods as per requirement
- **PC40.** answer questions politely, with clarity and confidence, during recruitment and selection
- **PC41.** 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.** components of salary and 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
- **KU16.** use applications such as word processors, spreadsheets etc.
- **KU17.** how to identify business opportunities
- **KU18.** types and needs of customers
- **KU19.** how to apply for a job and prepare for an interview
- **KU20.** 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 in English and other languages
- GS2. communicate effectively using appropriate language in formal and informal settings
- **GS3.** behave politely and appropriately with all to maintain effective work relationship
- **GS4.** how to work in a virtual mode, using various technological platforms
- **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









## **Assessment Criteria**

| Assessment Criteria for Outcomes   | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|--|-----------------|--------------------|------------------|---------------|
| Introduction to Employability Skills   | 1               | 1                  | -                | -             |
| <b>PC1.</b> understand the significance of employability skills in meeting the current job market requirement and future of work   | -               | -                  | -                | -             |
| PC2. identify and explore learning and employability relevant portals  | -               | -                  | -                | -             |
| <b>PC3.</b> research about the different industries, job market trends, latest skills required and the available opportunities   | -               | -                  | -                | -             |
| Constitutional values - Citizenship  | 1               | 1                  | -                | -             |
| <b>PC4.</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.   | -               | -                  | -                | -             |
| PC5. follow environmentally sustainable practices  | -               | -                  | -                | -             |
| Becoming a Professional in the 21st Century  | 1               | 3                  | -                | -             |
| <b>PC6.</b> recognize the significance of 21st Century Skills for employment   | -               | -                  | -                | -             |
| <b>PC7.</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 | -               | -                  | -                | -             |
| PC8. adopt a continuous learning mindset for personal and professional development   | -               | -                  | -                | -             |
| Basic English Skills   | 3               | 4                  | -                | -             |
| <b>PC9.</b> use basic English for everyday conversation in different contexts, in person and over the telephone  | -               | -                  | -                | -             |









| Assessment Criteria for Outcomes   | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|--|-----------------|--------------------|------------------|---------------|
| <b>PC10.</b> read and understand routine information, notes, instructions, mails, letters etc. written in English  | -               | -                  | -                | -             |
| <b>PC11.</b> write short messages, notes, letters, e-mails etc. in English   | -               | -                  | -                | -             |
| Career Development & Goal Setting  | 1               | 2                  | -                | -             |
| <b>PC12.</b> identify career goals based on the skills, interests, knowledge, and personal attributes  | -               | -                  | -                | -             |
| <b>PC13.</b> prepare a career development plan with short- and long-term goals   | -               | -                  | -                | -             |
| Communication Skills   | 2               | 2                  | -                | -             |
| <b>PC14.</b> follow verbal and non-verbal communication etiquette while communicating in professional and public settings  | -               | -                  | -                | -             |
| <b>PC15.</b> use active listening techniques for effective communication   | -               | -                  | -                | -             |
| <b>PC16.</b> communicate in writing using appropriate style and format based on formal or informal requirements  | -               | -                  | -                | -             |
| PC17. work collaboratively with others in a team   | -               | -                  | -                | -             |
| Diversity & Inclusion  | 1               | 1                  | -                | -             |
| <b>PC18.</b> communicate and behave appropriately with all genders and PwD   | -               | -                  | -                | -             |
| <b>PC19.</b> escalate any issues related to sexual harassment at workplace according to POSH Act   | -               | -                  | -                | -             |
| Financial and Legal Literacy   | 2               | 3                  | -                | -             |
| <b>PC20.</b> identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc. | -               | -                  | -                | -             |
| <b>PC21.</b> carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook                     | -               | -                  | -                | -             |









| Assessment Criteria for Outcomes   | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|--|-----------------|--------------------|------------------|---------------|
| <b>PC22.</b> identify common components of salary and compute income, expenses, taxes, investments etc   | -               | -                  | -                | -             |
| PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation   | -               | -                  | -                | -             |
| Essential Digital Skills   | 3               | 5                  | -                | -             |
| PC24. operate digital devices and use their features and applications securely and safely  | -               | -                  | -                | -             |
| <b>PC25.</b> carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc. | -               | -                  | -                | -             |
| <b>PC26.</b> display responsible online behaviour while using various social media platforms   | -               | -                  | -                | -             |
| <b>PC27.</b> create a personal email account, send and process received messages as per requirement  | -               | -                  | -                | -             |
| <b>PC28.</b> carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications   | -               | -                  | -                | -             |
| PC29. utilize virtual collaboration tools to work effectively  | -               | -                  | -                | -             |
| Entrepreneurship   | 2               | 3                  | -                | -             |
| <b>PC30.</b> identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research   | -               | -                  | -                | -             |
| <b>PC31.</b> develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion  | -               | -                  | -                | -             |
| <b>PC32.</b> identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity   | -               | -                  | -                | -             |
| Customer Service   | 1               | 2                  | -                | -             |
| PC33. identify different types of customers and ways to communicate with them  | -               | -                  | -                | -             |









| Assessment Criteria for Outcomes   | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks |
|--|-----------------|--------------------|------------------|---------------|
| <b>PC34.</b> identify and respond to customer requests and needs in a professional manner  | -               | -                  | -                | -             |
| <b>PC35.</b> use appropriate tools to collect customer feedback  | -               | -                  | -                | -             |
| <b>PC36.</b> follow appropriate hygiene and grooming standards   | -               | -                  | -                | -             |
| Getting ready for apprenticeship & Jobs  | 2               | 3                  | -                | -             |
| <b>PC37.</b> create a professional Curriculum vitae (Résumé)   | -               | -                  | -                | -             |
| <b>PC38.</b> search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively | -               | -                  | -                | -             |
| <b>PC39.</b> apply to identified job openings using offline /online methods as per requirement   | -               | -                  | -                | -             |
| <b>PC40.</b> answer questions politely, with clarity and confidence, during recruitment and selection  | -               | -                  | -                | -             |
| <b>PC41.</b> identify apprenticeship opportunities and register for it as per guidelines and requirements  | -               | -                  | -                | -             |
| NOS Total  | 20              | 30                 | -                | -             |









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

| NOS Code            | DGT/VSQ/N0103                   |
|---------------------|---------------------------------|
| NOS Name            | Employability Skills (90 Hours) |
| Sector              | Cross Sectoral                  |
| Sub-Sector          | Professional Skills             |
| Occupation          | Employability                   |
| NSQF Level          | 5                               |
| Credits             | 3                               |
| Version             | 1.0                             |
| Last Reviewed Date  | 08/05/2025                      |
| Next Review Date    | 08/05/2028                      |
| NSQC Clearance Date | 08/05/2025                      |

## Assessment Guidelines and Assessment Weightage

## **Assessment Guidelines**

- 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC)/ Elements 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/ Elements.
- 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 70%. To pass the Qualification Pack, every trainee should score a minimum of 70% 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 iterations 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 time frame set by SSC.
- 10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

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<br>Standards                     | Theory<br>Marks | Practical<br>Marks | Project<br>Marks | Viva<br>Marks | Total<br>Marks | Weightage |
|--|-----------------|--------------------|------------------|---------------|----------------|-----------|
| CON/N2113.Manage bidding for BIM construction projects | 30              | 60                 | 0                | 10            | 100            | 40        |
| CON/N2114.Manage the BIM construction process          | 30              | 60                 | 0                | 10            | 100            | 40        |
| CON/N9003.Manage health and safety at the workplace    | 40              | 60                 | 0                | 0             | 100            | 10        |
| DGT/VSQ/N0103.Employability<br>Skills (90 Hours)       | 20              | 30                 | -                | -             | 50             | 10        |
| Total  | 120             | 210                | 0                | 0             | 350            | 100       |









## **Acronyms**

| NOS  | National Occupational Standard(s)               |
|------|---|
| NSQF | National Skills Qualifications Framework        |
| QP   | Qualifications Pack                             |
| TVET | Technical and Vocational Education and Training |
| BIM  | Building Information Modeling                   |
| BEP  | BIM Execution Plan                              |
| IT   | Information Technology                          |
| QA   | Quality Assurance                               |
| QC   | Quality Control                                 |
| PPE  | Personal Protective Equipment                   |









## 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<br>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<br>Occupational<br>Standards (NOS) | NOS are occupational standards which apply uniquely in the Indian context.   |
| Qualifications Pack<br>(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<br>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<br>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<br>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.  |