



Supervisor Structure (Technical)

QP Code: CON/Q0111

Version: 3.0

NSQF Level: 5.5

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CON/Q0111: Supervisor Structure (Technical)

Brief Job Description

A Supervisor Structure (Technical) is responsible for planning, managing and allocating resources for various structural works at construction sites, supervising and monitoring concreting, bar bending, system shuttering carpentry and scaffolding activities while ensuring adherence to the applicable health, safety and environmental practices.

Personal Attributes

The individual should be physically fit to work in varying locations and conditions. The person should be organized, diligent, methodical, safety-conscious, and a prompt decision-maker. In addition to being a team player, the individual should have good communication skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [CON/N0132: Interpret drawings, specifications and standards for structural execution](#)
2. [CON/N0134: Plan, supervise and monitor execution of system shuttering carpentry works](#)
3. [CON/N0135: Plan, supervise and monitor execution of concreting works](#)
4. [CON/N0136: Plan, supervise and monitor execution of bar bending works](#)
5. [CON/N0137: Plan, supervise and monitor execution of scaffolding works](#)
6. [CON/N8003: Supervise, monitor and evaluate performance of subordinates at workplace](#)
7. [CON/N9002: Manage workplace for safe and healthy work environment](#)
8. [DGT/VSQ/N0103: Employability Skills \(90 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	
Occupation	Masonry
Country	India



Qualification Pack



NSQF Level	5.5
Credits	22
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3112.9900
Minimum Educational Qualification & Experience	<p>Completed 3 year UG degree OR Completed 2nd year diploma after 12th with 1 Year of experience in the relevant field OR Completed 2nd year of UG (UG Diploma) (of 3-year UG) with 1 Year of experience in the relevant field OR Completed 3 year diploma after 10th with 2 Years of experience in the relevant field OR 12th grade Pass with 3 Years of experience in the relevant field OR Previous relevant Qualification of NSQF Level (5) with 1.5 Years of experience in the relevant field) OR Previous relevant Qualification of NSQF Level (4.5) with 3 Years of experience in the relevant field</p>
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
Deactivation Date	30/04/2025
NSQC Approval Date	31/03/2022
Version	3.0
Reference code on NQR	QG-5.5-CO-03396-2024-V1.1-CSDCI
NQR Version	3.0



CON/N0132: Interpret drawings, specifications and standards for structural execution

Description

This unit describes the skills and knowledge required to read and interpret architectural GFC/ shop drawings, specifications and standards for structural execution

Scope

The scope covers the following :

- Interpret drawings, specifications and standards for concreting, scaffolding, shuttering carpentry and bar bending and steel fixing operations

Elements and Performance Criteria

Interpret drawings, specifications and standards for concreting, scaffolding, shuttering carpentry and bar bending and steel fixing operations

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

- PC1.** interpret details from Architectural GFC/ Shop drawings
- PC2.** interpret details from schedule of work
- PC3.** interpret specification and standards provided for relevant works
- PC4.** interpret all specification provided in the relevant drawing
- PC5.** interpret schedule provided for completion of work
- PC6.** read method statement for execution of work
- PC7.** interpret manufactures specification for operation of power tools
- PC8.** carry out calculation of required quantity of materials from relevant schematic working drawings
- PC9.** reproduce technical drawings as simplified hand sketches for explaining and providing clear instructions to subordinates

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for structural works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears and equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** statutory compliance requirement related to workmen engagement



Qualification Pack



- KU7.** schematic drawings, sketches for relevant work
- KU8.** principles involved in reading and interpreting various relevant drawings
- KU9.** how to read general arrangement drawing
- KU10.** simplified sketch preparation from the drawing
- KU11.** how to read plan, elevation and sectional drawing
- KU12.** basic principle of measurement, arithmetic and geometric calculations
- KU13.** terminology used in concreting, scaffolding, bar-bending and shuttering carpentry works
- KU14.** linear conversion of units
- KU15.** manufacturers specification and work method statement for relevant works
- KU16.** how to calculate material and resource required for relevant works
- KU17.** work method statement and scope of work
- KU18.** calculation of required quantity of materials from relevant schematic working drawings

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, 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 one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interpret drawings, specifications and standards for concreting, scaffolding, shuttering carpentry and bar bending and steel fixing operations</i>	30	70	-	-
PC1. interpret details from Architectural GFC/ Shop drawings	-	-	-	-
PC2. interpret details from schedule of work	-	-	-	-
PC3. interpret specification and standards provided for relevant works	-	-	-	-
PC4. interpret all specification provided in the relevant drawing	-	-	-	-
PC5. interpret schedule provided for completion of work	-	-	-	-
PC6. read method statement for execution of work	-	-	-	-
PC7. interpret manufactures specification for operation of power tools	-	-	-	-
PC8. carry out calculation of required quantity of materials from relevant schematic working drawings	-	-	-	-
PC9. reproduce technical drawings as simplified hand sketches for explaining and providing clear instructions to subordinates	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N0132
NOS Name	Interpret drawings, specifications and standards for structural execution
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	5.5
Credits	3
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0134: Plan, supervise and monitor execution of system shuttering carpentry works

Description

This unit describes the skills and knowledge required to plan, allocate resources and supervise and monitor execution of system shuttering carpentry works.

Scope

The scope covers the following :

- Plan and allocate resources for shuttering carpentry works
- Procure approvals and prepare checklist prior to and after commencement of work.
- Supervise and ensure execution of system shuttering carpentry works in accordance with agreed work plan

Elements and Performance Criteria

Plan and allocate resources for shuttering carpentry works

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

- PC1.** interpret drawings, specification and standards for formwork
- PC2.** confirm work hours and requirement for shuttering carpentry works with concerned superior
- PC3.** calculate component wise requirement for formwork
- PC4.** calculate the requirement of tools, tackles, consumables, equipment and manpower for making and erection of formwork
- PC5.** determine method of lifting, route and mode of transportation of relevant materials
- PC6.** allocate manpower and ensure their productivity

Procure approvals and prepare checklist prior to and after commencement of work

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

- PC7.** notify concerned superior for resources and equipment requirement
- PC8.** take safety clearance from services and EHS department before commencing shuttering work
- PC9.** provide clearance and mobility order to subcontractors for mobilization of resource and material at next workspace
- PC10.** check for completion of preparatory activities and coordinate between various departments
- PC11.** carry out checks and fill checklist after completion of work
- PC12.** provide status information on work received, in progress, backlog, and work assignments completed as requirement
- PC13.** maintain records and files and prepare reports on labour deployment, work done and productivity
- PC14.** review estimates, prepares sketches and reports on labor expenditures and materials used

Supervise and ensure execution of system shuttering carpentry works in accordance with agreed work plan



Qualification Pack



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

- PC15.** assist in sequencing key activities related to shuttering carpentry works for making schedule
- PC16.** assist in planning of timeline for identified key activities
- PC17.** record carpenters' time and materials used for each job
- PC18.** supervise carpentry jobs requiring a high degree of skill
- PC19.** ensure survey works and preparatory works are complete so as to provide required level & reference
- PC20.** check and ensure quality of plywood & timber prior to use
- PC21.** ensure availability of all tools, components, materials and fixture for assembling of shutters
- PC22.** ensure shutter is fabricated as per workshop drawing
- PC23.** ensure erected formwork is as per specified standards
- PC24.** ensure that appropriate procedure is followed while erecting formwork and while installing necessary supports, braces, penetrations, embedded parts, etc
- PC25.** check provision for lifting arrangement are provided in case of lifting of heavy weight formwork
- PC26.** monitor installation of jump form system using cranes or hydraulic system
- PC27.** monitor operation of jump form system
- PC28.** monitor proper functioning of hydraulic jack and cranes
- PC29.** monitor rising of formwork using hydraulic jacks and cranes
- PC30.** ensure safe lifting and lowering of formwork material using cranes
- PC31.** ensure that formwork is dismantled sequentially and safety following manufacturers instructions/ specification
- PC32.** provide assistance on complex jobs and ensure proper erection and dismantling of shuttering and formwork system

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for shuttering and formwork for in situ and pre cast construction works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears and equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** statutory compliance requirement related to workmen engagement
- KU7.** trade productivity norms
- KU8.** use of compact laser devices for setting out
- KU9.** company policies and hierarchy for reporting any anomaly
- KU10.** writing reports for submission to concerned authority
- KU11.** process of indent



Qualification Pack



- KU12.** determine work methods which makes best use of relevant resource
- KU13.** documentation required for resource management such as preparation of indents, material and manpower calculation, preparation of daily labor reports
- KU14.** providing mobilization order to sub-contractors
- KU15.** various checklist for pre-approval and post clearance of work
- KU16.** optimum utilization and allocation of tools, equipment and resources as per requirement
- KU17.** how to calculate productivity
- KU18.** procedure for fixing of components for making shutters
- KU19.** terminology used in formwork
- KU20.** different types and sizes of formwork material
- KU21.** unit weight of individual formwork components
- KU22.** equipments to be used for lifting of formwork material
- KU23.** lifting capacity of belts, slings etc
- KU24.** procedure adopted for lifting of assembled shutters
- KU25.** reconciliation of materials used for making shutters
- KU26.** how to control wastage of materials
- KU27.** detailed working knowledge of any of the following formwork systems, RMD, TRAD, Peri And Doka systems
- KU28.** how to use tools and equipment common to the shuttering carpentry
- KU29.** sequence and prioritizing of activities
- KU30.** how to identify priority and critical activity of relevant task
- KU31.** functional of hydraulic system
- KU32.** how to check plumb and take corrective action
- KU33.** how to determine & control rotation
- KU34.** use of fixtures, connection
- KU35.** use of tools, tackles, components and equipment required for installation and operation of climbing formwork
- KU36.** types of formwork and their applications for basic and complex structures
- KU37.** types of cranes and hydraulic jacks used for lifting of climbing formwork

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, 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 one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively



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- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and allocate resources for shuttering carpentry works</i>	10	20	-	-
PC1. interpret drawings, specification and standards for formwork	-	-	-	-
PC2. confirm work hours and requirement for shuttering carpentry works with concerned superior	-	-	-	-
PC3. calculate component wise requirement for formwork	-	-	-	-
PC4. calculate the requirement of tools, tackles, consumables, equipment and manpower for making and erection of formwork	-	-	-	-
PC5. determine method of lifting, route and mode of transportation of relevant materials	-	-	-	-
PC6. allocate manpower and ensure their productivity	-	-	-	-
<i>Procure approvals and prepare checklist prior to and after commencement of work</i>	10	20	-	-
PC7. notify concerned superior for resources and equipment requirement	-	-	-	-
PC8. take safety clearance from services and EHS department before commencing shuttering work	-	-	-	-
PC9. provide clearance and mobility order to subcontractors for mobilization of resource and material at next workspace	-	-	-	-
PC10. check for completion of preparatory activities and coordinate between various departments	-	-	-	-
PC11. carry out checks and fill checklist after completion of work	-	-	-	-
PC12. provide status information on work received, in progress, backlog, and work assignments completed as requirement	-	-	-	-



Qualification Pack



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. maintain records and files and prepare reports on labour deployment, work done and productivity	-	-	-	-
PC14. review estimates, prepares sketches and reports on labor expenditures and materials used	-	-	-	-
<i>Supervise and ensure execution of system shuttering carpentry works in accordance with agreed work plan</i>	10	30	-	-
PC15. assist in sequencing key activities related to shuttering carpentry works for making schedule	-	-	-	-
PC16. assist in planning of timeline for identified key activities	-	-	-	-
PC17. record carpenters' time and materials used for each job	-	-	-	-
PC18. supervise carpentry jobs requiring a high degree of skill	-	-	-	-
PC19. ensure survey works and preparatory works are complete so as to provide required level & reference	-	-	-	-
PC20. check and ensure quality of plywood & timber prior to use	-	-	-	-
PC21. ensure availability of all tools, components, materials and fixture for assembling of shutters	-	-	-	-
PC22. ensure shutter is fabricated as per workshop drawing	-	-	-	-
PC23. ensure erected formwork is as per specified standards	-	-	-	-
PC24. ensure that appropriate procedure is followed while erecting formwork and while installing necessary supports, braces, penetrations, embedded parts, etc	-	-	-	-
PC25. check provision for lifting arrangement are provided in case of lifting of heavy weight formwork	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. monitor installation of jump form system using cranes or hydraulic system	-	-	-	-
PC27. monitor operation of jump form system	-	-	-	-
PC28. monitor proper functioning of hydraulic jack and cranes	-	-	-	-
PC29. monitor rising of formwork using hydraulic jacks and cranes	-	-	-	-
PC30. ensure safe lifting and lowering of formwork material using cranes	-	-	-	-
PC31. ensure that formwork is dismantled sequentially and safety following manufacturers instructions/ specification	-	-	-	-
PC32. provide assistance on complex jobs and ensure proper erection and dismantling of shuttering and formwork system	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N0134
NOS Name	Plan, supervise and monitor execution of system shuttering carpentry works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	5.5
Credits	3
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0135: Plan, supervise and monitor execution of concreting works

Description

This unit describes the skills and knowledge required to supervise and monitor execution of concreting works

Scope

The scope covers the following :

- Plan and allocate resources for concreting works
- Procure approvals and prepare checklist prior to and after commencement of concreting work.
- Supervise and ensure execution of concreting works in accordance with agreed work plan

Elements and Performance Criteria

Plan and allocate resources for concreting works

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

- PC1.** interpret drawings, specification and standards for concreting work
- PC2.** confirm work hours and requirement for concreting works with concerned superior
- PC3.** calculate the requirement of tools, tackles, consumables, equipment and manpower for concreting work
- PC4.** determine method of lifting, route and mode of transportation of relevant materials from mixing point to pouring point
- PC5.** allocate manpower and ensure their productivity

Procure approvals and prepare checklist prior to and after commencement of concreting work

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

- PC6.** notify concerned superior for resources and equipment requirement
- PC7.** take safety clearance from services and EHS department before commencing concreting work
- PC8.** provide clearance and mobility order to subcontractors for mobilization of resource and material at next workspace
- PC9.** check for completion of preparatory activities and coordinate between various departments
- PC10.** carry out checks and fill checklist after completion of work
- PC11.** provide status information on work received, in progress, backlog, and work assignments completed as requirement
- PC12.** maintain records and files and prepare reports on labour deployment, work done and productivity
- PC13.** review estimates, prepares sketches and reports on labor expenditures and materials used

Supervise and ensure execution of concreting works in accordance with agreed work plan

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

- PC14.** inspect work progress, equipment, or construction sites to verify safety or to ensure that specifications are met



Qualification Pack



- PC15.** record information such as personnel, production, or operational data on specified forms or reports
- PC16.** coordinate with batching plant and construction site confirming continuity of supply of concrete
- PC17.** interpret specification sheets for information, such as sizes of aggregates and proportions of cement and water required, to ensure that concrete is mixed according to specifications
- PC18.** inspect bracing and shoring of concrete forms to ensure their stability before and during pouring
- PC19.** inspect the fixing and setting of pump line ,machinery for pouring of concrete
- PC20.** record details of the concreting works covering grade of concrete, area and volume of pour, number of workers ,tools and equipment deployed for work and achieved productivity
- PC21.** indicates positions for pouring chutes and runways, cranes, or paving machines to facilitate conveying concrete from mixer to forms
- PC22.** directs workers who spread, vibrate, screed, and float concrete to ensure that concrete is compacted to desired consistency and surface is finished to specified uniformity and smoothness
- PC23.** check for bulking and loose formwork during concreting
- PC24.** ensure execution of concreting in extreme hot/cold weather as per standard practices and specification
- PC25.** examines concrete, after forms are stripped, and gives instruction to workers to repair defects, such as roughness and honeycombed appearance
- PC26.** prescribe methods for curing concrete, such as covering surface of green (fresh) concrete with burlap, plastic, earth, straw, or chemical compound, to prevent green concrete from drying out rapidly or freezing

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for concreting works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears and equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** statutory compliance requirement related to workmen engagement
- KU7.** trade productivity norms
- KU8.** use of compact laser devices
- KU9.** company policies and hierarchy for reporting any anomaly
- KU10.** writing reports for submission to concerned authority
- KU11.** process of indent
- KU12.** determine work methods which makes best use of relevant resource



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- KU13.** documentation required for resource management such as preparation of indents, material and manpower calculation, preparation of daily labor reports
- KU14.** providing mobilization order to sub-contractors
- KU15.** various checklist for pre-approval and post clearance of work
- KU16.** optimum utilization and allocation of tools, equipment and resources as per requirement
- KU17.** how to calculate productivity
- KU18.** how to measure and check lines and levels for maintaining layout and alignment
- KU19.** standard practices, materials, and methods of the concreting works
- KU20.** use of tools and equipment for concreting works
- KU21.** structural drawings relevant to concreting works
- KU22.** methodology for estimation of required resource and material
- KU23.** standard tolerance levels for all aspects of concreting work (including pouring, screening, leveling and finishing)
- KU24.** difference and comparison between pre cast and in situ concreting works
- KU25.** basic properties and mix proportions of concrete
- KU26.** basic properties and mix proportions of concrete
- KU27.** appropriate techniques (including use of tools, equipment and material) for all aspects of concreting work (including pouring, screening, leveling and finishing)
- KU28.** methodology for checking line ,level and alignment for various concreting works
- KU29.** methodology of concreting works in horizontal, vertical and inclined surfaces
- KU30.** different type of high quality concrete finish
- KU31.** sequence of pour
- KU32.** variation of slump w.r.t rate of pour
- KU33.** different type of vibrators used(internal/external vibrators),their accessibility and influence area
- KU34.** vibration in congested areas
- KU35.** construction joints/cold joints
- KU36.** curing technique of form finished concrete
- KU37.** self-compact concrete
- KU38.** initial, final setting of concrete and their checking
- KU39.** correct positioning of the pump hose when pumping the SCC
- KU40.** methodology for hot/cold weather concreting works
- KU41.** major risks associated with hot and cold weather concrete

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, 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



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- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and allocate resources for concreting works</i>	10	20	-	-
PC1. interpret drawings, specification and standards for concreting work	-	-	-	-
PC2. confirm work hours and requirement for concreting works with concerned superior	-	-	-	-
PC3. calculate the requirement of tools, tackles, consumables, equipment and manpower for concreting work	-	-	-	-
PC4. determine method of lifting, route and mode of transportation of relevant materials from mixing point to pouring point	-	-	-	-
PC5. allocate manpower and ensure their productivity	-	-	-	-
<i>Procure approvals and prepare checklist prior to and after commencement of concreting work</i>	10	20	-	-
PC6. notify concerned superior for resources and equipment requirement	-	-	-	-
PC7. take safety clearance from services and EHS department before commencing concreting work	-	-	-	-
PC8. provide clearance and mobility order to subcontractors for mobilization of resource and material at next workspace	-	-	-	-
PC9. check for completion of preparatory activities and coordinate between various departments	-	-	-	-
PC10. carry out checks and fill checklist after completion of work	-	-	-	-
PC11. provide status information on work received, in progress, backlog, and work assignments completed as requirement	-	-	-	-
PC12. maintain records and files and prepare reports on labour deployment, work done and productivity	-	-	-	-



Qualification Pack



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. review estimates, prepares sketches and reports on labor expenditures and materials used	-	-	-	-
<i>Supervise and ensure execution of concreting works in accordance with agreed work plan</i>	10	30	-	-
PC14. inspect work progress, equipment, or construction sites to verify safety or to ensure that specifications are met	-	-	-	-
PC15. record information such as personnel, production, or operational data on specified forms or reports	-	-	-	-
PC16. coordinate with batching plant and construction site confirming continuity of supply of concrete	-	-	-	-
PC17. interpret specification sheets for information, such as sizes of aggregates and proportions of cement and water required, to ensure that concrete is mixed according to specifications	-	-	-	-
PC18. inspect bracing and shoring of concrete forms to ensure their stability before and during pouring	-	-	-	-
PC19. inspect the fixing and setting of pump line ,machinery for pouring of concrete	-	-	-	-
PC20. record details of the concreting works covering grade of concrete, area and volume of pour, number of workers ,tools and equipment deployed for work and achieved productivity	-	-	-	-
PC21. indicates positions for pouring chutes and runways, cranes, or paving machines to facilitate conveying concrete from mixer to forms	-	-	-	-
PC22. directs workers who spread, vibrate, screed, and float concrete to ensure that concrete is compacted to desired consistency and surface is finished to specified uniformity and smoothness	-	-	-	-
PC23. check for bulking and loose formwork during concreting	-	-	-	-



Qualification Pack



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC24. ensure execution of concreting in extreme hot/cold weather as per standard practices and specification	-	-	-	-
PC25. examines concrete, after forms are stripped, and gives instruction to workers to repair defects, such as roughness and honeycombed appearance	-	-	-	-
PC26. prescribe methods for curing concrete, such as covering surface of green (fresh) concrete with burlap, plastic, earth, straw, or chemical compound, to prevent green concrete from drying out rapidly or freezing	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N0135
NOS Name	Plan, supervise and monitor execution of concreting works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	5.5
Credits	4
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0136: Plan, supervise and monitor execution of bar bending works

Description

This unit describes the skills and knowledge required to supervise and monitor execution of concreting works

Scope

The scope covers the following :

- Plan and allocate resources for bar bending works
- Procure approvals and prepare checklist prior to and after commencement of work.
- Supervise and ensure execution of bar-bending works in accordance with agreed work plan

Elements and Performance Criteria

Plan and allocate resources for bar bending works

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

- PC1.** interpret drawings, specification and standards for bar bending works
- PC2.** confirm work hours and requirement for bar bending works with concerned superior
- PC3.** calculate the requirement of tools, tackles, consumables, equipment and manpower for bar bending works
- PC4.** determine method of lifting, route and mode of transportation of relevant materials from stock yard to erection point
- PC5.** allocate manpower and ensure their productivity

Procure approvals and prepare checklist prior to and after commencement of work

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

- PC6.** notify concerned superior for resources and equipment requirement
- PC7.** take safety clearance from services and EHS department before commencing bar bending work
- PC8.** provide clearance and mobility order to subcontractors for mobilization of resource and material at next workspace
- PC9.** check for completion of preparatory activities and coordinate between various departments
- PC10.** carry out checks and fill checklist after completion of work
- PC11.** provide status information on work received, in progress, backlog, and work assignments completed as requirement
- PC12.** maintain records and files and prepare reports on labour deployment, work done and productivity
- PC13.** review estimates, prepares sketches and reports on labor expenditures and materials used

Supervise and ensure execution of bar-bending works in accordance with agreed work plan

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

- PC14.** supervise bar bending task requiring high degree of skill



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- PC15.** inspect work progress, equipment, or construction sites to verify safety or to ensure that specifications are met
- PC16.** record information such as personnel, production, or operational data on specified forms or reports
- PC17.** read and follow manufactures specification for operation of power tools and CNC machine for cutting and bending
- PC18.** carry out weighing of steel reinforcement before unloading at site in coordination with the stores
- PC19.** ensure standard practices for storing and stacking of reinforcement steel at the yard
- PC20.** monitor all reinforcement bars cutting and bending activity at yard
- PC21.** ensure bundling/tagging and stacking of cut and bent bars as per bar marking the BBS
- PC22.** ensure scaffolding is complete as per required / specified heights/requirements, method, load carrying capacity, etc
- PC23.** check and ensure use of approved BBS for execution of reinforcement work
- PC24.** optimize use of already available cut steel rods to minimize wastage
- PC25.** plan sequence of insertion and fixing of reinforcement bars for different types of structures
- PC26.** co-relate the sequence of reinforcement placing with fixing of inserts, sleeves, conduits and anchors
- PC27.** check quality of mechanical connections of reinforcement bars
- PC28.** check the quality of pre-fabricated reinforcement cage and the erection process
- PC29.** ensure reinforcement bars, cast-in items, corrugated sleeve pipes, recesses, lifting hooks and inserts are correctly positioned and properly secured, within specified tolerance levels
- PC30.** ensure that the joints and edges of the mould, bolts, stoppers, tie rods, side props and rubber seal are intact and properly secured
- PC31.** check for stiffening of cage before lifting for stacking/erection
- PC32.** ensure completion of bar bending works as per agreed time schedule and within applicable tolerance limits

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for reinforcement works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** statutory compliance requirement related to workmen engagement
- KU7.** trade productivity norms
- KU8.** use of compact laser devices
- KU9.** company policies and hierarchy for reporting any anomaly



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- KU10.** writing reports for submission to concerned authority
- KU11.** determine work methods which makes best use of relevant resource
- KU12.** documentation required for resource management such as preparation of indents, material and manpower calculation, preparation of daily labor reports
- KU13.** providing mobilization order to sub-contractors
- KU14.** various checklist for pre-approval and post clearance of work
- KU15.** optimum utilization and allocation of tools, equipment and resources as per requirement
- KU16.** how to calculate productivity
- KU17.** standard procedures for stacking of reinforcement
- KU18.** various types of steel such as mild steel , tor steel and TMTsteel
- KU19.** method to prevent reinforcement against rusting, and weathering effect
- KU20.** bundling and tagging of reinforcement bars
- KU21.** schematic drawings, sketches and BBS
- KU22.** how to operate hand tools, power tools, CNC machine for their respective applications in reinforcement work
- KU23.** types of mechanical couplers and manufacturers instructions for their installations
- KU24.** types and optimum use of binding wire
- KU25.** common terminology used in reinforcement works
- KU26.** corrective measure for reinforcement
- KU27.** method for fixing of mechanical coupler
- KU28.** max allowable wastage of reinforcement bars
- KU29.** basic reconciliation of reinforcement
- KU30.** rolling marking of reinforcement
- KU31.** unit weight of reinforcement bars of different diameter
- KU32.** tolerance limits for various types of reinforcement works as per Indian/international codes
- KU33.** importance of reinforcement in precast RCC works
- KU34.** reinforcement insertion procedures for special structures like arches, domes, etc

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, 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 one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates



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GS9. evaluate the complexity of the tasks

GS10. identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and allocate resources for bar bending works</i>	10	20	-	-
PC1. interpret drawings, specification and standards for bar bending works	-	-	-	-
PC2. confirm work hours and requirement for bar bending works with concerned superior	-	-	-	-
PC3. calculate the requirement of tools, tackles, consumables, equipment and manpower for bar bending works	-	-	-	-
PC4. determine method of lifting, route and mode of transportation of relevant materials from stock yard to erection point	-	-	-	-
PC5. allocate manpower and ensure their productivity	-	-	-	-
<i>Procure approvals and prepare checklist prior to and after commencement of work</i>	10	20	-	-
PC6. notify concerned superior for resources and equipment requirement	-	-	-	-
PC7. take safety clearance from services and EHS department before commencing bar bending work	-	-	-	-
PC8. provide clearance and mobility order to subcontractors for mobilization of resource and material at next workspace	-	-	-	-
PC9. check for completion of preparatory activities and coordinate between various departments	-	-	-	-
PC10. carry out checks and fill checklist after completion of work	-	-	-	-
PC11. provide status information on work received, in progress, backlog, and work assignments completed as requirement	-	-	-	-
PC12. maintain records and files and prepare reports on labour deployment, work done and productivity	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. review estimates, prepares sketches and reports on labor expenditures and materials used	-	-	-	-
<i>Supervise and ensure execution of bar-bending works in accordance with agreed work plan</i>	10	30	-	-
PC14. supervise bar bending task requiring high degree of skill	-	-	-	-
PC15. inspect work progress, equipment, or construction sites to verify safety or to ensure that specifications are met	-	-	-	-
PC16. record information such as personnel, production, or operational data on specified forms or reports	-	-	-	-
PC17. read and follow manufactures specification for operation of power tools and CNC machine for cutting and bending	-	-	-	-
PC18. carry out weighing of steel reinforcement before unloading at site in coordination with the stores	-	-	-	-
PC19. ensure standard practices for storing and stacking of reinforcement steel at the yard	-	-	-	-
PC20. monitor all reinforcement bars cutting and bending activity at yard	-	-	-	-
PC21. ensure bundling/tagging and stacking of cut and bent bars as per bar marking the BBS	-	-	-	-
PC22. ensure scaffolding is complete as per required / specified heights/requirements, method, load carrying capacity, etc	-	-	-	-
PC23. check and ensure use of approved BBS for execution of reinforcement work	-	-	-	-
PC24. optimize use of already available cut steel rods to minimize wastage	-	-	-	-
PC25. plan sequence of insertion and fixing of reinforcement bars for different types of structures	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. co-relate the sequence of reinforcement placing with fixing of inserts, sleeves, conduits and anchors	-	-	-	-
PC27. check quality of mechanical connections of reinforcement bars	-	-	-	-
PC28. check the quality of pre-fabricated reinforcement cage and the erection process	-	-	-	-
PC29. ensure reinforcement bars, cast-in items, corrugated sleeve pipes, recesses, lifting hooks and inserts are correctly positioned and properly secured, within specified tolerance levels	-	-	-	-
PC30. ensure that the joints and edges of the mould, bolts, stoppers, tie rods, side props and rubber seal are intact and properly secured	-	-	-	-
PC31. check for stiffening of cage before lifting for stacking/erection	-	-	-	-
PC32. ensure completion of bar bending works as per agreed time schedule and within applicable tolerance limits	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0136
NOS Name	Plan, supervise and monitor execution of bar bending works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	5.5
Credits	4
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N0137: Plan, supervise and monitor execution of scaffolding works

Description

This unit describes the skills and knowledge required to supervise and monitor execution of scaffolding works.

Scope

The scope covers the following :

- Plan and allocate resources for scaffolding works
- Procure approvals and prepare checklist prior to and after commencement of work.
- Supervise and ensure execution of scaffolding works in accordance with agreed work plan

Elements and Performance Criteria

Plan and allocate resources for scaffolding works

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

- PC1.** interpret drawings, specification and standards for scaffolding works
- PC2.** confirm work hours and requirement for scaffolding works with concerned superior
- PC3.** calculate quantity of various components for scaffolding
- PC4.** calculate the requirement of tools, tackles, consumables, equipment and manpower for bar bending works
- PC5.** determine method of lifting, route and mode of transportation of relevant materials from stock yard to erection point
- PC6.** allocate manpower and ensure their productivity

Procure approvals and prepare checklist prior to and after commencement of work

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

- PC7.** notify concerned superior for resources and equipment requirement
- PC8.** take safety clearance from services and EHS department before commencing scaffolding work
- PC9.** provide clearance and mobility order to subcontractors for mobilization of resource and material at next workspace
- PC10.** check for completion of preparatory activities and coordinate between various departments
- PC11.** carry out checks and fill checklist after completion of work
- PC12.** provide status information on work received, in progress, backlog, and work assignments completed as requirement
- PC13.** maintain records and files and prepare reports on labour deployment, work done and productivity
- PC14.** review estimates, prepares sketches and reports on labor expenditures and materials used

Supervise and ensure execution of scaffolding works in accordance with agreed work plan

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

- PC15.** supervise scaffolding task requiring high degree of skill



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- PC16.** inspect work progress, equipment, or construction sites to verify safety or to ensure that specifications are met
- PC17.** record information such as personnel, production, or operational data on specified forms or reports
- PC18.** ensure completion of surveying, marking and other preparatory arrangement
- PC19.** ensure that standard procedure is followed during erection of scaffold
- PC20.** ensure safe lifting and lowering of scaffold material manually or by using crane
- PC21.** ensure height of scaffold erected is within permissible limits
- PC22.** ensure all working platform are properly fixed for carrying out subsequent activity
- PC23.** check scaffold for rigidity and ensured stability
- PC24.** ensure scaffolds are used only for intended purpose
- PC25.** ensure maintenance of safety protocol while using or accessing scaffold
- PC26.** check all guardrails, toe board, walk way boards, fall protection are in place to ensure safety
- PC27.** check scaffold is tagged for its purpose (safe for use, unsafe for use, scaffold incomplete)
- PC28.** check and ensure scaffold is supported with permanent structure at regular interval as per standard practices
- PC29.** check scaffold with respect to inspection checklist
- PC30.** record details of erected scaffold and document inspection checklist

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for scaffolding works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** statutory compliance requirement related to workmen engagement
- KU7.** trade productivity norms
- KU8.** use of compact laser devices for setting out
- KU9.** company policies and hierarchy for reporting any anomaly
- KU10.** writing reports for submission to concerned authority
- KU11.** process of indent
- KU12.** determine work methods which makes best use of relevant resource
- KU13.** documentation required for resource management such as preparation of indents, material and manpower calculation, preparation of daily labor reports
- KU14.** providing mobilization order to sub-contractors
- KU15.** various checklist for pre-approval and post clearance of work
- KU16.** optimum utilization and allocation of tools, equipment and resources as per requirement



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- KU17.** how to calculate productivity
- KU18.** scaffolding tasks
- KU19.** how to measure and check lines and levels for maintaining layout and alignment
- KU20.** standard practices, materials, and methods of the scaffolding works
- KU21.** use of tools and equipment common to the scaffolding trade
- KU22.** basic principles of measurement along with simple geometry
- KU23.** methodology for estimation of required resource and material
- KU24.** procedure for layout of scaffolding as per drawings
- KU25.** how to read and interpret scaffolding drawing , other relevant working drawings and working method statement
- KU26.** standard tolerance limits for of scaffolding work (including erection and dismantling of conventional scaffold, mobile tower, staircase, complex scaffolds, etc.)
- KU27.** safety mechanism for scaffolds in normal and confined areas
- KU28.** preventive and corrective action to ensure that the scaffolding work meets the quality requirements as per drawings
- KU29.** checklist for scaffolding works
- KU30.** importance of snag list clearance
- KU31.** basic principle of measurement and marking
- KU32.** arithmetic and geometry calculation
- KU33.** maximum tolerance limit for scaffold as per Indian/International code practices
- KU34.** line, level and alignment required for scaffold
- KU35.** preventive and corrective action to ensure scaffold meets the required standards of quality
- KU36.** components, materials and tools used in scaffolding works
- KU37.** procedure for layout of scaffold as per drawings
- KU38.** different types of scaffolds system such as pipe and couplers and other common customized system scaffold (frame scaffold) for basic and complex structures

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, 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 one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks



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GS10. identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and allocate resources for scaffolding works</i>	10	20	-	-
PC1. interpret drawings, specification and standards for scaffolding works	-	-	-	-
PC2. confirm work hours and requirement for scaffolding works with concerned superior	-	-	-	-
PC3. calculate quantity of various components for scaffolding	-	-	-	-
PC4. calculate the requirement of tools, tackles, consumables, equipment and manpower for bar bending works	-	-	-	-
PC5. determine method of lifting, route and mode of transportation of relevant materials from stock yard to erection point	-	-	-	-
PC6. allocate manpower and ensure their productivity	-	-	-	-
<i>Procure approvals and prepare checklist prior to and after commencement of work</i>	10	20	-	-
PC7. notify concerned superior for resources and equipment requirement	-	-	-	-
PC8. take safety clearance from services and EHS department before commencing scaffolding work	-	-	-	-
PC9. provide clearance and mobility order to subcontractors for mobilization of resource and material at next workspace	-	-	-	-
PC10. check for completion of preparatory activities and coordinate between various departments	-	-	-	-
PC11. carry out checks and fill checklist after completion of work	-	-	-	-
PC12. provide status information on work received, in progress, backlog, and work assignments completed as requirement	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. maintain records and files and prepare reports on labour deployment, work done and productivity	-	-	-	-
PC14. review estimates, prepares sketches and reports on labor expenditures and materials used	-	-	-	-
<i>Supervise and ensure execution of scaffolding works in accordance with agreed work plan</i>	10	30	-	-
PC15. supervise scaffolding task requiring high degree of skill	-	-	-	-
PC16. inspect work progress, equipment, or construction sites to verify safety or to ensure that specifications are met	-	-	-	-
PC17. record information such as personnel, production, or operational data on specified forms or reports	-	-	-	-
PC18. ensure completion of surveying, marking and other preparatory arrangement	-	-	-	-
PC19. ensure that standard procedure is followed during erection of scaffold	-	-	-	-
PC20. ensure safe lifting and lowering of scaffold material manually or by using crane	-	-	-	-
PC21. ensure height of scaffold erected is within permissible limits	-	-	-	-
PC22. ensure all working platform are properly fixed for carrying out subsequent activity	-	-	-	-
PC23. check scaffold for rigidity and ensured stability	-	-	-	-
PC24. ensure scaffolds are used only for intended purpose	-	-	-	-
PC25. ensure maintenance of safety protocol while using or accessing scaffold	-	-	-	-
PC26. check all guardrails, toe board, walk way boards, fall protection are in place to ensure safety	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC27. check scaffold is tagged for its purpose (safe for use, unsafe for use, scaffold incomplete)	-	-	-	-
PC28. check and ensure scaffold is supported with permanent structure at regular interval as per standard practices	-	-	-	-
PC29. check scaffold with respect to inspection checklist	-	-	-	-
PC30. record details of erected scaffold and document inspection checklist	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0137
NOS Name	Plan, supervise and monitor execution of scaffolding works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	5.5
Credits	3
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N9002: Manage workplace for safe and healthy work environment

Description

This unit describes the skill and knowledge required to maintain a healthy & safe working environment for the group of people working under an individual.

Scope

The scope covers the following :

- Ensure effective implementation of health, safety and environment policies and procedures
- Identify and respond to risks / fire and emergencies associated with the work practices and workplace
- Ensure sanitization and infection control guidelines are followed at construction site

Elements and Performance Criteria

Ensure effective implementation of health, safety and environment policies and procedures

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

- PC1.** implement safe handling and stacking methods at workplace /store
- PC2.** ensure the adequate availability and placing of safety and protection installations at site
- PC3.** ensure that safe access ways are available at work place for movement of workers and materials
- PC4.** ensure the safe use of tools and tackles by teammates as per work requirements
- PC5.** ensure ergonomic principles are adopted by the teammates while lifting and shifting of construction materials, tools and equipment
- PC6.** ensure appropriate use of following Personal Protective Equipment (PPE) as per work requirement of head protection, ear protection, fall protection, foot protection, face and eye protection, hand and body protection, respiratory protection
- PC7.** maintain entry and exit pathways from confined spaces, excavated pits and other location as per safety parameters/instructions
- PC8.** ensure proper housekeeping at workplace
- PC9.** ensure that subordinates adhere to health and safety plans

Identify and respond to risks / fire and emergencies associated with the work practices and workplace

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

- PC10.** identify any hazard at workplace and report/notify the same to appropriate authorities.
- PC11.** follow procedures for accident recording and reporting as per organizational and statutory requirements
- PC12.** ensure effective adherence to emergency response procedures / protocols
- PC13.** select and operate different types of fire extinguishers corresponding to types of fires as per EHS guideline
- PC14.** obtain 'height pass' clearance as per EHS guideline
- PC15.** implement control measures to reduce risks ,meeting legislative requirements within the scope of own role and expertise, as per organizational policies



Ensure sanitization and infection control guidelines are followed at construction site

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

- PC16.** promote awareness about latest hygiene and sanitation regulations
- PC17.** ensure disinfection procedure related to material, tools and supplies are followed properly
- PC18.** respond to infection prevention and control and its non-compliance, within scope of own role or report to required personnel

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the policies, procedures and protocol set up by the EHS Department with respect to Health, Safety and Environment at the respective construction site
- KU2.** reporting procedures in cases of breaches or hazards in site safety, accidents or emergency situations
- KU3.** safe working practices for tools, tackles and equipment
- KU4.** workplace policies and health and safety requirements for dealing with potential risks as defined by the EHS department
- KU5.** how to respond to accidents and emergencies
- KU6.** the appropriate personal protective equipment to be used based on various working conditions
- KU7.** how to use necessary material, tools, tackles and equipment in a safe and appropriate manner as specified by site EHS for each level and respective workman gang
- KU8.** ways of transmission of infection
- KU9.** ways to manage infectious risks at the workplace
- KU10.** different methods of cleaning, disinfection, sterilization and sanitization
- KU11.** symptoms of infection like fever, cough, redness, swelling and inflammation
- KU12.** actions to be taken during a medical emergency
- KU13.** current guidelines, national legislation, local policies and protocols regarding spread of infectious disease.

Generic Skills (GS)

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

- GS1.** write in at least one 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 one of the local language at the site
- GS4.** listen and follow instructions shared by site EHS and superiors regarding site safety
- GS5.** communicate reporting of site conditions, hazards, accidents, etc.
- GS6.** analyze the safety aspect of the workplace
- GS7.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure effective implementation of health, safety and environment policies and procedures</i>	15	40	-	-
PC1. implement safe handling and stacking methods at workplace /store	-	-	-	-
PC2. ensure the adequate availability and placing of safety and protection installations at site	-	-	-	-
PC3. ensure that safe access ways are available at work place for movement of workers and materials	-	-	-	-
PC4. ensure the safe use of tools and tackles by teammates as per work requirements	-	-	-	-
PC5. ensure ergonomic principles are adopted by the teammates while lifting and shifting of construction materials, tools and equipment	-	-	-	-
PC6. ensure appropriate use of following Personal Protective Equipment (PPE) as per work requirement of head protection, ear protection, fall protection, foot protection, face and eye protection, hand and body protection, respiratory protection	-	-	-	-
PC7. maintain entry and exit pathways from confined spaces, excavated pits and other location as per safety parameters/instructions	-	-	-	-
PC8. ensure proper housekeeping at workplace	-	-	-	-
PC9. ensure that subordinates adhere to health and safety plans	-	-	-	-
<i>Identify and respond to risks / fire and emergencies associated with the work practices and workplace</i>	10	20	-	-
PC10. identify any hazard at workplace and report/notify the same to appropriate authorities.	-	-	-	-
PC11. follow procedures for accident recording and reporting as per organizational and statutory requirements	-	-	-	-
PC12. ensure effective adherence to emergency response procedures / protocols	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. select and operate different types of fire extinguishers corresponding to types of fires as per EHS guideline	-	-	-	-
PC14. obtain 'height pass' clearance as per EHS guideline	-	-	-	-
PC15. implement control measures to reduce risks ,meeting legislative requirements within the scope of own role and expertise, as per organizational policies	-	-	-	-
<i>Ensure sanitization and infection control guidelines are followed at construction site</i>	5	10	-	-
PC16. promote awareness about latest hygiene and sanitation regulations	-	-	-	-
PC17. ensure disinfection procedure related to material, tools and supplies are followed properly	-	-	-	-
PC18. respond to infection prevention and control and its non-compliance , within scope of own role or report to required personnel	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N9002
NOS Name	Manage workplace for safe and healthy work environment
Sector	Construction
Sub-Sector	Generic
Occupation	Generic Safety
NSQF Level	5
Credits	1
Version	4.0
Last Reviewed Date	08/05/2025
Next Review Date	30/04/2028
NSQC Clearance Date	08/05/2025



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



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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 etc

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



Qualification Pack



- 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



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- 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 Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
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	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
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	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
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	-	-	-	-
<i>Basic English Skills</i>	3	4	-	-
PC9. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-



Qualification Pack



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
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	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-
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	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
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	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC18. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC19. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
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	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. 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	-	-	-	-
<i>Essential Digital Skills</i>	3	5	-	-
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	-	-	-	-
<i>Entrepreneurship</i>	2	3	-	-
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	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC33. identify different types of customers and ways to communicate with them	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
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	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
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	-	-	-	-
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)/ 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 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.



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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 : 70

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

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0132. Interpret drawings, specifications and standards for structural execution	30	70	-	-	100	15
CON/N0134. Plan, supervise and monitor execution of system shuttering carpentry works	30	70	-	-	100	15
CON/N0135. Plan, supervise and monitor execution of concreting works	30	70	-	-	100	15
CON/N0136. Plan, supervise and monitor execution of bar bending works	30	70	-	-	100	15
CON/N0137. Plan, supervise and monitor execution of scaffolding works	30	70	-	-	100	15
CON/N8003. Supervise, monitor and evaluate performance of subordinates at workplace	30	70	-	-	100	10



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N9002.Manage workplace for safe and healthy work environment	30	70	-	-	100	10
DGT/VSQ/N0103.Employability Skills (90 Hours)	20	30	-	-	50	5
Total	230	520	-	-	750	100



Qualification Pack



Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training



Qualification Pack



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.



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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.