



Qualification Pack



Brick Mason

Electives: General/ Plastering

Options: VDF flooring/ Random rubble works

QP Code: CON/Q0113

Version: 2.0

NSQF Level: 4

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CON/Q0113: Brick Mason

Brief Job Description

Brick mason is required to perform routine masonry works such as brickwork, block work, laying paver blocks, plastering, brick bat coba waterproofing, random rubble masonry and IPS/Tremix flooring works etc.

Personal Attributes

The brick mason is expected to be physically fit to work across various locations with varied environmental 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/N0143: Mark the layout for brick/block works](#)
2. [CON/N0144: Carry out brick laying work](#)
3. [CON/N0145: Carry out block laying work](#)
4. [CON/N8001: Work effectively in a team to deliver desired results at the workplace](#)
5. [CON/N8002: Plan and organize work to meet expected outcomes](#)
6. [CON/N9001: Work according to personal health, safety and environment protocols at construction site](#)
7. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Electives (mandatory to select at least one):

Elective 1: General

The individual is required to prepare layout, perform brick/block work, perform IPS flooring and perform brick bat coba waterproofing works using appropriate tools and equipment as per approved schedule, drawings and specifications.

1. [CON/N0146: Carry out brick bat coba waterproofing](#)
2. [CON/N0147: Carry out IPS \(Indian Patent Stone\) flooring](#)

Elective 2: Plastering



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The individual is required to carry out plastering works on various surfaces using appropriate tools and equipment as per approved schedule, drawings and specifications

1. [CON/N0111: Apply plaster on internal & external surfaces of masonry & RCC structure](#)

Options(Not mandatory):

Option 1: VDF flooring

This unit describes the skills and knowledge required to work on VDF flooring

1. [CON/N0148: Carry out VDF \(Vaccum dewatered floor\) flooring](#)

Option 2: Random rubble works

This unit describes the skills and knowledge required to build structures using random rubble masonry

1. [CON/N0113: Build structures using random rubble masonry](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
Country	India
NSQF Level	4
Credits	23
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7112.02



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Minimum Educational Qualification & Experience	11th grade pass OR Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma OR 10th grade pass plus 1-year NTC/ NAC OR 8th grade pass plus 2-year NTC plus 1 Year NAC OR 10th grade pass and pursuing continuous schooling OR 5th grade pass OR No formal education prescribed
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NIL
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	31/03/2025
NSQC Approval Date	31/03/2022
Version	2.0
Reference code on NQR	2022/CON/CSDCI/06617
NQR Version	1



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CON/N0143: Mark the layout for brick/block works

Description

This unit describes the skills and knowledge required to mark layout for brick/block works

Scope

The scope covers the following :

- Carry out preparatory work for layout marking
- Mark the layout for brick/block work

Elements and Performance Criteria

Carry out preparatory work for layout marking

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

- PC1.** read and interpret the basic working drawings / sketches before the commencement of brick / block work
- PC2.** select required tools for the task and ensure they are in working condition
- PC3.** select appropriate Personal Protective Equipment (P.P.E.s) for the task
- PC4.** ensure work place is clear for marking the layout
- PC5.** set out the layouts as per sketches/drawings
- PC6.** identify and transfer required levels using appropriate tools

Mark the layout for brick/block work

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

- PC7.** mark the centre lines of the rooms by setting perpendiculars using 3-4-5 method and check right angle (90°) at corners
- PC8.** set out 90° corners using builders square or 3-4-5 method and check right angle
- PC9.** perform marking for acute angle, obtuse angle, splayed wall etc.
- PC10.** check the diagonals ensuring they are equal

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices of masonry 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.** basic principles of measurement



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- KU7.** tools and equipment required for layout marking and earthwork, their use and maintenance
- KU8.** how to use the 3-4-5 method for squaring corners
- KU9.** standard practices for layout
- KU10.** layout sketches for foundation ,walls and other masonry units

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/routine work drawings, 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



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory work for layout marking</i>	6	14	-	-
PC1. read and interpret the basic working drawings / sketches before the commencement of brick / block work	-	-	-	-
PC2. select required tools for the task and ensure they are in working condition	-	-	-	-
PC3. select appropriate Personal Protective Equipment (P.P.E.s) for the task	-	-	-	-
PC4. ensure work place is clear for marking the layout	-	-	-	-
PC5. set out the layouts as per sketches/drawings	-	-	-	-
PC6. identify and transfer required levels using appropriate tools	-	-	-	-
<i>Mark the layout for brick/block work</i>	24	56	-	-
PC7. mark the centre lines of the rooms by setting perpendiculars using 3-4-5 method and check right angle (90°)at corners	-	-	-	-
PC8. set out 90° corners using builders square or 3-4-5 method and check right angle	-	-	-	-
PC9. perform marking for acute angle, obtuse angle, splayed wall etc.	-	-	-	-
PC10. check the diagonals ensuring they are equal	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0143
NOS Name	Mark the layout for brick/block works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	1
Version	2.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



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CON/N0144: Carry out brick laying work

Description

This unit describes the skills and knowledge required to carry out brick laying work

Scope

The scope covers the following :

- Check material used for brickwork
- Lay bricks for construction of load bearing / non-load bearing wall, columns and footings
- Check the line, level and alignment
- Carry out pointing in brick masonry
- Perform specialized masonry works such as arches, staircase, manholes and walkways
- Repair and restore brick masonry

Elements and Performance Criteria

• *Check material used for brickwork*

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

- PC1.** ensure tools are in working condition
- PC2.** check visually for the quality of bricks / blocks prior to use
- PC3.** ensure fine aggregate is sieved as per grade requirement
- PC4.** ensure bricks are soaked prior to use

• *Lay bricks for construction of load bearing / non-load bearing wall, columns and footings*

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

- PC5.** select appropriate tools and equipment as per the tasks at requirement such as: different types of trowels (of the right blade size), masons hammer, blocking chisel, mashing hammer, jointers etc.
- PC6.** break bricks to required shape and size using appropriate tools
- PC7.** estimate the quantity of raw material required
- PC8.** lay and fix bricks as per required bond within tolerance limit using appropriate mortar as per applicability
- PC9.** check vertical and horizontal alignment using appropriate tools
- PC10.** maintain line and level of each course of brickwork using wooden / aluminium straight edge sections
- PC11.** set out 90° corners using builders square or 3-4-5 method and check right angle
- PC12.** ensure proper curing of constructed masonry structure

• *Carry out pointing in brick masonry*

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

- PC13.** perform raking of joints as specified prior to drying of bonding mortar
- PC14.** ensure that joints are cleaned and surface is wet prior to pointing
- PC15.** ensure lime/cement mortar for pointing is prepared as per specification



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- PC16.** fill joints with appropriate mortar to obtain specified type of pointing
- PC17.** carry out various types of pointing works as per specification using appropriate tools and technique
- PC18.** ensure proper curing of pointing

Perform specialized masonry works such as arches, staircase, manholes, and walkways

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

- PC19.** maintain set out of tread and riser of staircase as per drawing/instruction
- PC20.** ensure masonry works as per required bond, alignment and plumb
- PC21.** maintain bricks for manholes as per required line & level and providing channels and benching
- PC22.** lay and fix paver blocks to designed pattern & finish the joints as specified
- PC23.** install anchors and ties for masonry arches
- PC24.** install arch masonry unit by laying and aligning as per specified bond
- PC25.** cut creepers around corners and full joints to obtain a flushed structure
- PC26.** ensure proper curing of constructed masonry structure

Repair and restore brick masonry

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

- PC27.** remove deteriorated elements from masonry structures using tools such as saws drills and chisels without causing damage to adjacent structure
- PC28.** reinstall bricks to match previous or existing work
- PC29.** perform proper pointing and raking of joint to obtain desired surface for exposed brick work
- PC30.** ensure proper bonding with old and new surface

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for masonry work
- 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.** sketches for building bricks structures
- KU7.** basic principles of measurement
- KU8.** standard specification of all masonry tools and equipment, their care and maintenance
- KU9.** Different types/grades of cement, aggregates and bricks including fly ash bricks and low water absorbing bricks
- KU10.** English ,Flemish , stretcher & header bond
- KU11.** how to use basic leveling tools in the masonry trade such as: Spirit level, water level, plumb bob, line thread etc.



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- KU12.** how to select and use tools and equipment such as: Measuring tape, trowels, floats, brushes, screed boards, straightedge, concrete mixer, mortar boards and stands, shovels, wheelbarrows, hawks, joint rules, mason's square, buckets, power leads, spade, volume box, water measuring jug
- KU13.** how to determine vertical and horizontal alignment using appropriate tools to provide vertical datum lines for building measurements
- KU14.** how to use the 3-4-5 method for squaring corners
- KU15.** various techniques / procedures for cutting/chiseling/dressing different types of bricks to closure
- KU16.** how to lay and fix brick in position
- KU17.** size of girth and joints
- KU18.** cement mix proportion and its importance
- KU19.** water-cement ratio
- KU20.** method of curing of masonry structures
- KU21.** arch component & terminology
- KU22.** importance of proper joint spacing & gauging in arches
- KU23.** techniques for repairing & finishing
- KU24.** various types of pointing in brick masonry and its application including: flush pointing, keyed/grooved pointing, recessed pointing, struck pointing
- KU25.** different mortar mix used for pointing
- KU26.** various pointing and raking tools and techniques and method of pointing a joint as per specification

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/routine work drawings, 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



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
• <i>Check material used for brickwork</i>	3	7	-	-
PC1. ensure tools are in working condition	-	-	-	-
PC2. check visually for the quality of bricks / blocks prior to use	-	-	-	-
PC3. ensure fine aggregate is sieved as per grade requirement	-	-	-	-
PC4. ensure bricks are soaked prior to use	-	-	-	-
• <i>Lay bricks for construction of load bearing / non-load bearing wall, columns and footings</i>	9	21	-	-
PC5. select appropriate tools and equipment as per the tasks at requirement such as: different types of trowels (of the right blade size), masons hammer, blocking chisel, mashing hammer, jointers etc.	-	-	-	-
PC6. break bricks to required shape and size using appropriate tools	-	-	-	-
PC7. estimate the quantity of raw material required	-	-	-	-
PC8. lay and fix bricks as per required bond within tolerance limit using appropriate mortar as per applicability	-	-	-	-
PC9. check vertical and horizontal alignment using appropriate tools	-	-	-	-
PC10. maintain line and level of each course of brickwork using wooden / aluminium straight edge sections	-	-	-	-
PC11. set out 90° corners using builders square or 3-4-5 method and check right angle	-	-	-	-
PC12. ensure proper curing of constructed masonry structure	-	-	-	-
<i>Carry out pointing in brick masonry</i>	3	7	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. perform raking of joints as specified prior to drying of bonding mortar	-	-	-	-
PC14. ensure that joints are cleaned and surface is wet prior to pointing	-	-	-	-
PC15. ensure lime/cement mortar for pointing is prepared as per specification	-	-	-	-
PC16. fill joints with appropriate mortar to obtain specified type of pointing	-	-	-	-
PC17. carry out various types of pointing works as per specification using appropriate tools and technique	-	-	-	-
PC18. ensure proper curing of pointing	-	-	-	-
<i>Perform specialized masonry works such as arches, staircase, manholes, and walkways</i>	12	28	-	-
PC19. maintain set out of tread and riser of staircase as per drawing/instruction	-	-	-	-
PC20. ensure masonry works as per required bond, alignment and plumb	-	-	-	-
PC21. maintain bricks for manholes as per required line & level and providing channels and benching	-	-	-	-
PC22. lay and fix paver blocks to designed pattern & finish the joints as specified	-	-	-	-
PC23. install anchors and ties for masonry arches	-	-	-	-
PC24. install arch masonry unit by laying and aligning as per specified bond	-	-	-	-
PC25. cut creepers around corners and full joints to obtain a flushed structure	-	-	-	-
PC26. ensure proper curing of constructed masonry structure	-	-	-	-
<i>Repair and restore brick masonry</i>	3	7	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC27. remove deteriorated elements from masonry structures using tools such as saws drills and chisels without causing damage to adjacent structure	-	-	-	-
PC28. reinstall bricks to match previous or existing work	-	-	-	-
PC29. perform proper pointing and raking of joint to obtain desired surface for exposed brick work	-	-	-	-
PC30. ensure proper bonding with old and new surface	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0144
NOS Name	Carry out brick laying work
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	3
Version	2.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N0145: Carry out block laying work

Description

This unit describes the skills and knowledge required to construct various masonry structures using block

Scope

The scope covers the following :

- Check material used for block work
- Lay block for construction of wall
- Repair and restore block masonry

Elements and Performance Criteria

Check material used for block work

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

- PC1.** check visually the quality of blocks prior to use
- PC2.** ensure fine aggregate is sieved as per grade requirement
- PC3.** ensure blocks are soaked prior to use

Lay block for construction of wall

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

- PC4.** select appropriate tools and equipment as per the tasks at requirement such as: different types of trowels (of the right blade size), masons hammer, blocking chisel, mashing hammer, jointers etc.
- PC5.** estimate the quantity of raw material required
- PC6.** lay and fix blocks as per specification within tolerance limit using appropriate mortar as per applicability
- PC7.** lay and fix blocks with appropriate adhesives for thin joint masonry
- PC8.** maintain required level and specified slope for construction
- PC9.** check vertical and horizontal alignment using appropriate tools
- PC10.** maintain line and level of each course of brickwork using wooden / aluminum straight edge sections
- PC11.** set out 90° corners using builders square or 3-4-5 method and check right angle

Repair and restore block masonry

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

- PC12.** remove deteriorated elements from masonry structures using tools such as saw, drills and chisels without causing damage to adjacent structure
- PC13.** reinstall block to match previous or existing work
- PC14.** ensure proper bonding with old and new surface

Knowledge and Understanding (KU)



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The individual on the job needs to know and understand:

- KU1.** standard practices for masonry work
- 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.** sketches for building block work structures
- KU7.** basic principles of measurement
- KU8.** standard specification of all masonry tools and equipments, their care and maintenance
- KU9.** type and size of raw materials required
- KU10.** how to use basic leveling tools in the masonry trade such as Spirit level, water level, plumb bob, line thread etc.
- KU11.** how to select and use tools and equipment such as: Measuring tape, trowels, floats, brushes, screed boards, straightedge, concrete mixer, mortarboards and stands, shovels, wheelbarrows, hawks, joint rules, mason's square, buckets, power leads, spade, volume box, water measuring jug etc.
- KU12.** how to determine vertical and horizontal alignment using appropriate tools to provide vertical datum lines for building measurements
- KU13.** how to use the 3-4-5 method for squaring corners
- KU14.** how to lay and fix blocks in position
- KU15.** thin joint masonry
- KU16.** cement mix proportion and its importance
- KU17.** various adhesives used in block work
- KU18.** water cement ratio
- KU19.** techniques for repairing & finishing

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/routine work drawings, 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



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Check material used for block work</i>	3	7	-	-
PC1. check visually the quality of blocks prior to use	-	-	-	-
PC2. ensure fine aggregate is sieved as per grade requirement	-	-	-	-
PC3. ensure blocks are soaked prior to use	-	-	-	-
<i>Lay block for construction of wall</i>	21	49	-	-
PC4. select appropriate tools and equipment as per the tasks at requirement such as: different types of trowels (of the right blade size), masons hammer, blocking chisel, mashing hammer, jointers etc.	-	-	-	-
PC5. estimate the quantity of raw material required	-	-	-	-
PC6. lay and fix blocks as per specification within tolerance limit using appropriate mortar as per applicability	-	-	-	-
PC7. lay and fix blocks with appropriate adhesives for thin joint masonry	-	-	-	-
PC8. maintain required level and specified slope for construction	-	-	-	-
PC9. check vertical and horizontal alignment using appropriate tools	-	-	-	-
PC10. maintain line and level of each course of brickwork using wooden / aluminum straight edge sections	-	-	-	-
PC11. set out 90° corners using builders square or 3-4-5 method and check right angle	-	-	-	-
<i>Repair and restore block masonry</i>	6	14	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. remove deteriorated elements from masonry structures using tools such as saw, drills and chisels without causing damage to adjacent structure	-	-	-	-
PC13. reinstall block to match previous or existing work	-	-	-	-
PC14. ensure proper bonding with old and new surface	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0145
NOS Name	Carry out block laying work
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



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CON/N8001: Work effectively in a team to deliver desired results at the workplace

Description

This unit describes the skills and knowledge required to work effectively within a team to achieve the desired results

Scope

The scope covers the following :

- Interact and communicate in an effective manner
- Support co-workers to execute the project requirements
- Practice inclusion

Elements and Performance Criteria

Interact and communicate in an effective manner

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

- PC1.** pass on work related information/ requirement clearly to the team members
- PC2.** inform co-workers and superiors about any kind of deviations from work
- PC3.** report any unresolved problem to the supervisor immediately
- PC4.** obtain instructions from superiors and respond on the same
- PC5.** communicate to team members/subordinates for appropriate work technique and method
- PC6.** seek clarification and advice as per the requirement

Support co-workers to execute the project requirements

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

- PC7.** hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams
- PC8.** work together with co-workers in a synchronized manner

Practice inclusion

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

- PC9.** maintain cultural inclusivity at work place
- PC10.** maintain disability friendly work practices
- PC11.** follow gender neutral practices at workplace
- PC12.** address discriminatory and offensive behaviour in a professional manner as per organizational policy

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** own roles and responsibilities



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- KU2.** importance of effective communication
- KU3.** the consequence of poor teamwork on project outcomes, timelines, safety at the construction site, etc.
- KU4.** different modes of communication used at workplace
- KU5.** importance of creating healthy and cooperative work environment among the gangs of workers
- KU6.** different activities within the work area where interaction with other workers is required
- KU7.** applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement
- KU8.** importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timeliness, safety, risks at the construction project site
- KU9.** importance and need of supporting co-workers facing problems for the smooth functioning of work
- KU10.** the fundamental concept of gender equality
- KU11.** how to recognise and be sensitive to issues of disability, culture and gender
- KU12.** legislation, policies, and procedures relating to gender sensitivity and cultural diversity including their impact on the area of operation

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 the communication regarding work completion, materials used, tools and tackles used, the resource required, etc,
- GS3.** speak in one or more languages, preferably in one of the local language of the site
- GS4.** listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes
- GS5.** communicate orally and effectively with co-workers considering their educational and social background
- GS6.** decide on what information is to be shared with co-workers within the team or to the interfacing gang of workers
- GS7.** plan work and organize the required resources in coordination with team members
- GS8.** complete all assigned task in coordination with team members
- GS9.** take initiative in resolving issues among co-workers or report the same to superiors
- GS10.** ensure best ways of coordination among team members
- GS11.** evaluate the complexity of task and determine if any guidance is required from superiors



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact and communicate in an effective manner</i>	18	42	-	-
PC1. pass on work related information/ requirement clearly to the team members	-	-	-	-
PC2. inform co-workers and superiors about any kind of deviations from work	-	-	-	-
PC3. report any unresolved problem to the supervisor immediately	-	-	-	-
PC4. obtain instructions from superiors and respond on the same	-	-	-	-
PC5. communicate to team members/subordinates for appropriate work technique and method	-	-	-	-
PC6. seek clarification and advice as per the requirement	-	-	-	-
<i>Support co-workers to execute the project requirements</i>	6	14	-	-
PC7. hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams	-	-	-	-
PC8. work together with co-workers in a synchronized manner	-	-	-	-
<i>Practice inclusion</i>	6	14	-	-
PC9. maintain cultural inclusivity at work place	-	-	-	-
PC10. maintain disability friendly work practices	-	-	-	-
PC11. follow gender neutral practices at workplace	-	-	-	-
PC12. address discriminatory and offensive behaviour in a professional manner as per organizational policy	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N8001
NOS Name	Work effectively in a team to deliver desired results at the workplace
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	4
Credits	1
Version	10.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQF Clearance Date	31/08/2023



Qualification Pack

CON/N8002: Plan and organize work to meet expected outcomes

Description

This unit describes the knowledge and the skills required for an individual to plan and organize own work in order to meet expected outcome

Scope

The scope covers the following :

- Plan and prepare for work
- Organise required resources as per work plan
- Complete work as per the plan

Elements and Performance Criteria

Plan and prepare for work

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

- PC1.** identify the targets and timelines set by superiors
- PC2.** determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task
- PC3.** plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities
- PC4.** prepare the work areas in coordination with team members
- PC5.** plan for waste collection and disposal prior to and after completion of work

Organise required resources as per work plan

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

- PC6.** arrange the required manpower prior to commencement of work
- PC7.** organize the required materials, tools and tackles required for the task

Complete work as per the plan

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

- PC8.** engage allocated manpower in an appropriate manner
- PC9.** employ correct tools, tackles and equipment for the desired work
- PC10.** provide guidance to the subordinates to obtain desired outcome
- PC11.** use resources in an optimum manner to avoid any unnecessary wastage
- PC12.** use tools, tackles and equipment carefully to avoid damage
- PC13.** ensure the work processes adopted are in line with the specified standards and instructions
- PC14.** complete the work with the allocated resources within specified time
- PC15.** clean and organise the workplace after completion of task

Knowledge and Understanding (KU)



Qualification Pack

The individual on the job needs to know and understand:

- KU1.** importance of proper housekeeping including safe waste disposal
- KU2.** policies, procedures and work targets set by superiors
- KU3.** how to identify work activities that need to be planned and organized
- KU4.** how to determine the task requirements
- KU5.** how to determine the quality requirements related to the task
- KU6.** how to undertake all aspect of planning and organizing the task, including interpretation of task, reading drawing/schedules, arranging resources, reporting problems etc.
- KU7.** how to implement the planned activities
- KU8.** how to use available resources in a judicious and appropriate manner to minimize wastages or damage

Generic Skills (GS)

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

- GS1.** write in one or more language, preferably the local language at the site
- GS2.** read communication from co-workers, superiors and notices from other departments as per requirement of the level
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** follow communication shared by co-workers regarding standard work processes, resources available, timelines, etc.
- GS5.** communicate effectively with co-workers and subordinates
- GS6.** decide on what sequence is to be adopted for execution of work
- GS7.** plan and organize the materials, tools, tackles and equipment required to execute the work
- GS8.** complete all assigned task with proper planning and organizing
- GS9.** analyze areas of work which could result in a delay of work, wastage of material or damage to tools and tackles
- GS10.** evaluate potential solutions to minimize avoidable delays and wastages at the construction site



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and prepare for work</i>	9	21	-	-
PC1. identify the targets and timelines set by superiors	-	-	-	-
PC2. determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task	-	-	-	-
PC3. plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities	-	-	-	-
PC4. prepare the work areas in coordination with team members	-	-	-	-
PC5. plan for waste collection and disposal prior to and after completion of work	-	-	-	-
<i>Organise required resources as per work plan</i>	6	14	-	-
PC6. arrange the required manpower prior to commencement of work	-	-	-	-
PC7. organize the required materials, tools and tackles required for the task	-	-	-	-
<i>Complete work as per the plan</i>	15	35	-	-
PC8. engage allocated manpower in an appropriate manner	-	-	-	-
PC9. employ correct tools, tackles and equipment for the desired work	-	-	-	-
PC10. provide guidance to the subordinates to obtain desired outcome	-	-	-	-
PC11. use resources in an optimum manner to avoid any unnecessary wastage	-	-	-	-
PC12. use tools, tackles and equipment carefully to avoid damage	-	-	-	-
PC13. ensure the work processes adopted are in line with the specified standards and instructions	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. complete the work with the allocated resources within specified time	-	-	-	-
PC15. clean and organise the workplace after completion of task	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N8002
NOS Name	Plan and organize work to meet expected outcomes
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	4
Credits	1
Version	7.0
Last Reviewed Date	NA
Next Review Date	19/07/2023
NSQC Clearance Date	19/01/2023



Qualification Pack

CON/N9001: Work according to personal health, safety and environment protocols at construction site

Description

This NOS covers the skill and knowledge required for an individual to work according to personal health, safety and environmental protocols at construction site

Scope

The scope covers the following :

- Follow safety norms as defined by organization
- Adopt healthy & safe work practices
- Implement good housekeeping and environment protection process and activities
- Follow infection control guidelines as per applicability

Elements and Performance Criteria

Follow safety norms as defined by the organization

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

- PC1.** identify and report any hazards, risks or breaches in site safety to the appropriate authority
- PC2.** follow emergency and evacuation procedures in case of accidents, fires, natural calamities
- PC3.** follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable
- PC4.** follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site
- PC5.** select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline
- PC6.** identify near miss, unsafe condition and unsafe act

Adopt healthy & safe work practices

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

- PC7.** use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)
- PC8.** handle all required tools, tackles, materials and equipment safely
- PC9.** follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines
- PC10.** check and install all safety equipment as per standard guidelines
- PC11.** follow safety protocols and practices as laid down by site EHS department
- PC12.** obtain "height pass" clearance for working at heights

Implement good housekeeping practices

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

- PC13.** collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature



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PC14. apply ergonomic principles wherever required

Follow infection control guidelines as per applicability

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

PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices

PC16. clean and disinfect all materials, tools and supplies before and after use

PC17. report immediately to concerned authorities regarding signs and symptoms of illness of self and others

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines
- KU2.** types of safety hazards at construction sites
- KU3.** basic ergonomic principles as per applicability
- KU4.** the procedure for responding to accidents and other emergencies at site
- KU5.** use of appropriate personal protective equipment based on various working conditions
- KU6.** importance of handling tools, equipment, and materials as per applicable norms
- KU7.** effect of construction material on health and environments as per applicability
- KU8.** various environmental protection methods as per applicability
- KU9.** storage of waste including non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes and any other flammable wastes at the appropriate location
- KU10.** how to keep the workplace neat and tidy so as to be safe
- KU11.** how to use hazardous material in a safe and appropriate manner as per applicability
- KU12.** types of fire
- KU13.** procedure of operating different types of fire extinguishers
- KU14.** safety relevant to tools, tackles, and equipment as per applicability
- KU15.** housekeeping activities relevant to task
- KU16.** ways of transmission of infection
- KU17.** ways to manage infectious risks at the workplace
- KU18.** different methods of cleaning, disinfection, sterilization, and sanitization
- KU19.** symptoms of infection like fever, cough, redness, swelling, and inflammation

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.** fill safety formats for near miss, unsafe conditions and safety suggestions
- GS3.** read in one or more language, preferably in the local language of the site



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- GS4.** speak in one or more language, preferably in one of the local language of the site
- GS5.** listen to instructions/communication shared by site EHS and superiors regarding site safety, and conducting the toolbox talk
- GS6.** identify potential safety risks and report to the appropriate authority
- GS7.** assess and analyze areas which may affect health, safety and environment protocol on the site



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow safety norms as defined by the organization</i>	6	14	-	-
PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	-	-	-	-
PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities	-	-	-	-
PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable	-	-	-	-
PC4. follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site	-	-	-	-
PC5. select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline	-	-	-	-
PC6. identify near miss, unsafe condition and unsafe act	-	-	-	-
<i>Adopt healthy & safe work practices</i>	15	35	-	-
PC7. use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)	-	-	-	-
PC8. handle all required tools, tackles, materials and equipment safely	-	-	-	-
PC9. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	-	-	-	-
PC10. check and install all safety equipment as per standard guidelines	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. follow safety protocols and practices as laid down by site EHS department	-	-	-	-
PC12. obtain "height pass" clearance for working at heights	-	-	-	-
<i>Implement good housekeeping practices</i>	6	14	-	-
PC13. collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature	-	-	-	-
PC14. apply ergonomic principles wherever required	-	-	-	-
<i>Follow infection control guidelines as per applicability</i>	3	7	-	-
PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices	-	-	-	-
PC16. clean and disinfect all materials, tools and supplies before and after use	-	-	-	-
PC17. report immediately to concerned authorities regarding signs and symptoms of illness of self and others	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N9001
NOS Name	Work according to personal health, safety and environment protocols at construction site
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic Safety
NSQF Level	4
Credits	1
Version	8.0
Last Reviewed Date	NA
Next Review Date	19/07/2023
NSQC Clearance Date	19/01/2023



Qualification Pack

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

Description

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

Scope

The scope covers the following :

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

Elements and Performance Criteria

Introduction to Employability Skills

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

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

Constitutional values - Citizenship

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

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

Becoming a Professional in the 21st Century

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

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

Basic English Skills

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



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

Career Development & Goal Setting

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

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

Communication Skills

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

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

Diversity & Inclusion

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

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

Financial and Legal Literacy

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

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

Essential Digital Skills

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

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

Entrepreneurship

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

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

Customer Service

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

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



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PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC29. create a professional Curriculum vitae (Résumé)

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

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

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

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

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

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

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

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

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

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

KU11. how to compute income and expenditure

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

KU13. different legal rights and laws

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

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

KU16. how to identify business opportunities

KU17. types and needs of customers

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

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

Generic Skills (GS)

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

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

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



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



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Assessment Criteria

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



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



Qualification Pack

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



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023



Qualification Pack

CON/N0146: Carry out brick bat coba waterproofing

Description

This unit describes the skills and knowledge required to carry out work for the brick bat coba waterproofing

Scope

The scope covers the following :

- Carry out brick bat coba waterproofing

Elements and Performance Criteria

• Carry out brick bat coba waterproofing

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

- PC1.** clean and wash the surface to be water proofed
- PC2.** ensure bricks are soaked overnight prior to laying a course
- PC3.** ensure all non-structural gaps are filled prior to laying brick bat course
- PC4.** identify and transfer required levels using appropriate tools
- PC5.** prepare a cement mortar of appropriate ratio adding waterproofing admixtures
- PC6.** apply and spread an even thickness of mortar on the surface
- PC7.** lay brick bat on the prepared mortar ensuring proper placement and uniform gaps between bricks
- PC8.** check horizontal and vertical alignment using appropriate tools
- PC9.** fill all gaps in brick bat using cement mortar
- PC10.** finish the top surface smooth with cement mortar prepared in specified proportion along with admixtures
- PC11.** mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for waterproofing 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.** preparation of the surface before the waterproofing



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- KU7.** usage of various tools and equipment as per the waterproofing requirements of the surface such as: trowels, rollers, brushes, angle grinders, shovels, wheelbarrows, knives or cutting blades, hammers, brooms, vacuum cleaner etc.
- KU8.** procedure of laying brick bat coba waterproofing course
- KU9.** checks for water leakages

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/routine work drawings, 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



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
• <i>Carry out brick bat coba waterproofing</i>	30	70	-	-
PC1. clean and wash the surface to be water proofed	-	-	-	-
PC2. ensure bricks are soaked overnight prior to laying a course	-	-	-	-
PC3. ensure all non-structural gaps are filled prior to laying brick bat course	-	-	-	-
PC4. identify and transfer required levels using appropriate tools	-	-	-	-
PC5. prepare a cement mortar of appropriate ratio adding waterproofing admixtures	-	-	-	-
PC6. apply and spread an even thickness of mortar on the surface	-	-	-	-
PC7. lay brick bat on the prepared mortar ensuring proper placement and uniform gaps between bricks	-	-	-	-
PC8. check horizontal and vertical alignment using appropriate tools	-	-	-	-
PC9. fill all gaps in brick bat using cement mortar	-	-	-	-
PC10. finish the top surface smooth with cement mortar prepared in specified proportion along with admixtures	-	-	-	-
PC11. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0146
NOS Name	Carry out brick bat coba waterproofing
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N0147: Carry out IPS (Indian Patent Stone) flooring

Description

This unit describes the skills and knowledge required to work on IPS flooring

Scope

The scope covers the following :

- Carry out preparatory work prior to IPS flooring
- Check for line, level, and alignment
- Check the materials used for IPS flooring in case of manual mixing
- Check the materials used for IPS flooring in case of machine mixing
- Carry out IPS flooring

Elements and Performance Criteria

Carry out preparatory work prior to IPS flooring

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

- PC1.** inspect the work area prior to concreting, ensure leveling in case of any undulations observed on the surface prior to concreting
- PC2.** ensure surface is prepared appropriately and report any deviation in slope and alignment in PCC
- PC3.** report any gaps in formwork to avoid leakage
- PC4.** report any misalignment in formwork/reinforcement and ensure proper cover for reinforcement is provided

Check for line, level and alignment

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

- PC5.** mark reference level on the wall & transfer this marking to all floor locations using appropriate tools
- PC6.** mark flooring thickness level and provide dummy level dots at specified intervals for ensuring required slope

Check the materials used for IPS flooring in case of manual mixing

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

- PC7.** check the grade of cement prior to use in case of manual mixing
- PC8.** ensure fine aggregate is sieved as per grade requirement
- PC9.** check that concrete is mixed in appropriate proportion

Check the materials used for IPS flooring in case of machine mixing

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

- PC10.** check visually the concrete mix for usability and workability and notify superiors of the same
- PC11.** ensure specified concrete mix is used at allocated location
- PC12.** check that panels prepared are of specified size and type

Carry out IPS flooring



Qualification Pack

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

- PC13.** fix the glass, aluminum or brass strip in cement mortar with their tops at appropriate level and according to slope
- PC14.** ensure panels are made as per specified size
- PC15.** ensure concrete is poured in alternate panels/specified panels as per requirement
- PC16.** remove excess cement slurry and any marks on the surface
- PC17.** level the concrete surface with a straight edge and to the required finish with a wooden float / trowel
- PC18.** spread cement punning over the IPS concrete for smooth finish surface and allow it to soak into the concrete, as per requirement
- PC19.** provide construction joints and expansion joints as per requirement
- PC20.** carry out levelling of the poured concrete to the specified levels maintaining the required slope
- PC21.** ensure curing of the finished floor surface for the specified time

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for IPS flooring
- 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.** process to prepare the sub-base by watering and ramming
- KU7.** how to provide adequate slope in PCC (Plain Cement Concrete) in a base course
- KU8.** how to make reference levels and transfer the markings to all locations where flooring is to be done
- KU9.** various types and grades of cement used, effect of water /cement ratio and type of aggregates
- KU10.** different mix proportion/grade of concrete
- KU11.** sequence of concrete pouring and placing
- KU12.** manual mixing of concrete and nominal mix proportions
- KU13.** different reinforcement cover with respect to the size of the reinforcement bar
- KU14.** how to pour of concrete in alternate panels
- KU15.** how to avoid shrinkage cracks in concrete
- KU16.** various admixtures used in concreting
- KU17.** different types of vibrators, their influence area and use
- KU18.** construction and expansion joints
- KU19.** cutting tools for providing joints



Qualification Pack

KU20. final toweling process before the concrete is hardened

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/routine work drawings, 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



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory work prior to IPS flooring</i>	3	7	-	-
PC1. inspect the work area prior to concreting, ensure leveling in case of any undulations observed on the surface prior to concreting	-	-	-	-
PC2. ensure surface is prepared appropriately and report any deviation in slope and alignment in PCC	-	-	-	-
PC3. report any gaps in formwork to avoid leakage	-	-	-	-
PC4. report any misalignment in formwork/reinforcement and ensure proper cover for reinforcement is provided	-	-	-	-
<i>Check for line, level and alignment</i>	3	7	-	-
PC5. mark reference level on the wall & transfer this marking to all floor locations using appropriate tools	-	-	-	-
PC6. mark flooring thickness level and provide dummy level dots at specified intervals for ensuring required slope	-	-	-	-
<i>Check the materials used for IPS flooring in case of manual mixing</i>	3	7	-	-
PC7. check the grade of cement prior to use in case of manual mixing	-	-	-	-
PC8. ensure fine aggregate is sieved as per grade requirement	-	-	-	-
PC9. check that concrete is mixed in appropriate proportion	-	-	-	-
<i>Check the materials used for IPS flooring in case of machine mixing</i>	3	7	-	-
PC10. check visually the concrete mix for usability and workability and notify superiors of the same	-	-	-	-
PC11. ensure specified concrete mix is used at allocated location	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. check that panels prepared are of specified size and type	-	-	-	-
<i>Carry out IPS flooring</i>	18	42	-	-
PC13. fix the glass, aluminum or brass strip in cement mortar with their tops at appropriate level and according to slope	-	-	-	-
PC14. ensure panels are made as per specified size	-	-	-	-
PC15. ensure concrete is poured in alternate panels/specified panels as per requirement	-	-	-	-
PC16. remove excess cement slurry and any marks on the surface	-	-	-	-
PC17. level the concrete surface with a straight edge and to the required finish with a wooden float / trowel	-	-	-	-
PC18. spread cement punning over the IPS concrete for smooth finish surface and allow it to soak into the concrete, as per requirement	-	-	-	-
PC19. provide construction joints and expansion joints as per requirement	-	-	-	-
PC20. carry out levelling of the poured concrete to the specified levels maintaining the required slope	-	-	-	-
PC21. ensure curing of the finished floor surface for the specified time	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0147
NOS Name	Carry out IPS (Indian Patent Stone) flooring
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N0111: Apply plaster on internal & external surfaces of masonry & RCC structure

Description

This unit describes the skills and knowledge required for plastering on internal and external surfaces of Masonry & RCC structures

Scope

The scope covers the following :

- Carry out preparatory work before starting the plastering work
- Check material used for plastering
- Plaster internal & external masonry & RCC structures
- Check for line, level & alignment

Elements and Performance Criteria

Carry out preparatory work before starting the plastering work

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

- PC1.** read sketches for plastering work
- PC2.** select correct materials, tools, tackles and equipment for plastering
- PC3.** ensure that surface receiving plaster is prepared appropriately
- PC4.** set layouts as per the specification prior to start of plastering work
- PC5.** produce appropriate levels and make any grooves or lines on the surface as instructed

Check material used for plastering

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

- PC6.** ensure sieving of fine aggregate as per grade requirement
- PC7.** check the quality of surface to be plastered
- PC8.** check for quality and consistency of cement mortar mix

Plaster internal & external masonry & RCC structures

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

- PC9.** ensure that the correct tools and equipment are selected for plastering work as per requirement
- PC10.** moisten surface sufficiently before starting of the plastering work
- PC11.** ensure that cement mortar is mixed in specified proportion including additives if any
- PC12.** apply cement slurry on receiving surface uniformly
- PC13.** apply the plastering mix of specified thickness on the surface
- PC14.** finish the surface by using correct tools as per the required finish
- PC15.** check for horizontal & vertical alignment during and after plastering

Check for line , level & alignment

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



Qualification Pack

- PC16.** check for vertical and horizontal alignment using appropriate tools
- PC17.** check for slope or maintain falls of the floor
- PC18.** check for right angle at corner if required

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for plastering 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.** sketches for all plastering work
- KU7.** basic principles of measurement
- KU8.** standard specification of all masonry tools and equipments ,their care and maintenance
- KU9.** how to use basic leveling tools in the masonry trade such as: Spirit level, water level plumb bob, line thread
- KU10.** how to select and use tools and equipments such as: Finishing Trowel, Plastering Corner Trowel, Plastering Trowels, Pre-worn permashape etc. Plasters Hawk, Plastering Float, Plastering Feather edges, Plastering Derbies Plastering Joint Knives and Spreaders, Plastering Sanders and Sheets Measuring tape/rule, floats, brushes, straight edge, shovels, wheelbarrows, hawks, square, buckets, spade, volume box, measuring can
- KU11.** gradation of sand for internal plasters
- KU12.** how to determine vertical and horizontal alignment using plumb bob to provide vertical datum lines for building measurements
- KU13.** how to continuously monitor the alignment of the plastering on the brick / block work using leveling tools
- KU14.** different types of plasters such as sand faced plaster, rough cast plaster pebbled cast plaster, smooth cast plaster
- KU15.** methods and techniques for plastering internal and external masonry and RCC structures
- KU16.** various mix proportion to be used and thickness of plastering to be done on internal and external surfaces

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/routine work drawings, 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



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory work before starting the plastering work</i>	3	7	-	-
PC1. read sketches for plastering work	-	-	-	-
PC2. select correct materials, tools, tackles and equipment for plastering	-	-	-	-
PC3. ensure that surface receiving plaster is prepared appropriately	-	-	-	-
PC4. set layouts as per the specification prior to start of plastering work	-	-	-	-
PC5. produce appropriate levels and make any grooves or lines on the surface as instructed	-	-	-	-
<i>Check material used for plastering</i>	6	14	-	-
PC6. ensure sieving of fine aggregate as per grade requirement	-	-	-	-
PC7. check the quality of surface to be plastered	-	-	-	-
PC8. check for quality and consistency of cement mortar mix	-	-	-	-
<i>Plaster internal & external masonry & RCC structures</i>	18	42	-	-
PC9. ensure that the correct tools and equipment are selected for plastering work as per requirement	-	-	-	-
PC10. moisten surface sufficiently before starting of the plastering work	-	-	-	-
PC11. ensure that cement mortar is mixed in specified proportion including additives if any	-	-	-	-
PC12. apply cement slurry on receiving surface uniformly	-	-	-	-
PC13. apply the plastering mix of specified thickness on the surface	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. finish the surface by using correct tools as per the required finish	-	-	-	-
PC15. check for horizontal & vertical alignment during and after plastering	-	-	-	-
<i>Check for line , level & alignment</i>	3	7	-	-
PC16. check for vertical and horizontal alignment using appropriate tools	-	-	-	-
PC17. check for slope or maintain falls of the floor	-	-	-	-
PC18. check for right angle at corner if required	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0111
NOS Name	Apply plaster on internal & external surfaces of masonry & RCC structure
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	4
Version	3.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N0148: Carry out VDF (Vaccum dewatered floor) flooring

Description

This unit describes the skills and knowledge required to work on VDF flooring

Scope

The scope covers the following :

- Carry out preparatory work prior to VDF flooring
- Check for line, level and alignment.
- Check the materials used for VDF flooring in case of manual mixing
- Check the materials used for VDF flooring in case of machine mixing
- Carry out VDF flooring

Elements and Performance Criteria

Carry out preparatory work prior to VDF flooring

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

- PC1.** inspect the work area prior to concreting, ensure leveling in case of any undulations observed on the surface prior to concreting
- PC2.** ensure surface is prepared appropriately and report any deviation in slope and alignment in PCC
- PC3.** report any gaps in formwork to avoid leakage
- PC4.** report any misalignment in formwork/reinforcement and ensure proper cover for reinforcement is provided

Check for line, level and alignment

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

- PC5.** mark reference level on the wall & transfer this marking to all floor locations using appropriate tools
- PC6.** mark flooring thickness level and provide dummy level dots at specified intervals for ensuring required slope

Check the materials used for VDF flooring in case of manual mixing

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

- PC7.** check the grade of cement prior to use in case of manual mixing
- PC8.** ensure fine aggregate is sieved as per grade requirement
- PC9.** check that concrete is mixed in appropriate proportion

Check the materials used for VDF flooring in case of machine mixing

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

- PC10.** check visually the concrete mix for usability and workability and notify superiors of the same
- PC11.** ensure specified concrete mix is used at allocated location
- PC12.** check that panels prepared are of specified size and type

Carry out VDF Flooring work



Qualification Pack

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

- PC13.** level the surface and lay stone soling / boulder soling layer
- PC14.** lay the floor with slope maintained in PCC work above the stone soling
- PC15.** remove excess water from the top layer of wet concrete without removing cement or sand particles through vacuum de-watering machine
- PC16.** ensure floater work within green concrete surface
- PC17.** carry out Tremix flooring in specified panel on RCC floors ensuring intactness of rebar and cover
- PC18.** cut grooves on concrete at specified intervals for construction joints
- PC19.** provide expansion joints as per requirement
- PC20.** carry out curing of finished concrete as per specifications
- PC21.** ensure finished levels have required slope

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for VDF flooring
- 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.** how to use all masonry tools along with some specialized tools for VDF flooring such as Vacuum de-watering Pump, Floater Machine, Double beam Screen Vibrator etc
- KU7.** process to prepare the sub-base by watering and ramming
- KU8.** how to provide an adequate slope in PCC (Plain Cement Concrete) in a base course
- KU9.** how to make reference levels and transfer the markings to all locations where flooring is to be done
- KU10.** various types and grades of cement used, effect of water /cement ratio and type of aggregates
- KU11.** different mix proportion/grade of concrete
- KU12.** sequence of concrete pouring and placing
- KU13.** manual mixing of concrete and nominal mix proportions
- KU14.** cover to reinforcement with respect to size of reinforcement
- KU15.** how to pour of concrete in alternate panels
- KU16.** how to avoid shrinkage cracks in concrete
- KU17.** various admixtures used in concreting
- KU18.** different types of vibrators, their influence area, and use
- KU19.** construction and expansion joints
- KU20.** cutting tools for providing joints



Qualification Pack

- KU21.** excess water removal process using Vacuum dewatered machine
- KU22.** hardener usage along with floater machine (if required) at the time of finishing the floor surface to increase abrasion resistance of the floor
- KU23.** how to provide space for narrow passage for operating float vibrator along a wall

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/routine work drawings, 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



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory work prior to VDF flooring</i>	3	7	-	-
PC1. inspect the work area prior to concreting, ensure leveling in case of any undulations observed on the surface prior to concreting	-	-	-	-
PC2. ensure surface is prepared appropriately and report any deviation in slope and alignment in PCC	-	-	-	-
PC3. report any gaps in formwork to avoid leakage	-	-	-	-
PC4. report any misalignment in formwork/reinforcement and ensure proper cover for reinforcement is provided	-	-	-	-
<i>Check for line, level and alignment</i>	3	7	-	-
PC5. mark reference level on the wall & transfer this marking to all floor locations using appropriate tools	-	-	-	-
PC6. mark flooring thickness level and provide dummy level dots at specified intervals for ensuring required slope	-	-	-	-
<i>Check the materials used for VDF flooring in case of manual mixing</i>	3	7	-	-
PC7. check the grade of cement prior to use in case of manual mixing	-	-	-	-
PC8. ensure fine aggregate is sieved as per grade requirement	-	-	-	-
PC9. check that concrete is mixed in appropriate proportion	-	-	-	-
<i>Check the materials used for VDF flooring in case of machine mixing</i>	3	7	-	-
PC10. check visually the concrete mix for usability and workability and notify superiors of the same	-	-	-	-
PC11. ensure specified concrete mix is used at allocated location	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. check that panels prepared are of specified size and type	-	-	-	-
<i>Carry out VDF Flooring work</i>	18	42	-	-
PC13. level the surface and lay stone soling / boulder soling layer	-	-	-	-
PC14. lay the floor with slope maintained in PCC work above the stone soling	-	-	-	-
PC15. remove excess water from the top layer of wet concrete without removing cement of sand particles through vacuum de-watering machine	-	-	-	-
PC16. ensure floater work within green concrete surface	-	-	-	-
PC17. carry out Tremix flooring in specified panel on RCC floors ensuring intactness of rebar and cover	-	-	-	-
PC18. cut grooves on concrete at specified intervals for construction joints	-	-	-	-
PC19. provide expansion joints as per requirement	-	-	-	-
PC20. carry out curing of finished concrete as per specifications	-	-	-	-
PC21. ensure finished levels have required slope	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0148
NOS Name	Carry out VDF (Vaccum dewatered floor) flooring
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N0113: Build structures using random rubble masonry

Description

This unit describes the skills and knowledge required to build structures using random rubble masonry

Scope

The scope covers the following :

- Carry out preparatory work for rubble masonry
- Check the material used for random rubble masonry
- Lay out coursed and un-coursed Random Rubble Masonry with undressed or hammer dressed stones
- Carry out pointing in stone masonry
- Lay out course of Dry Rubble Masonry
- Check for line, level and alignment

Elements and Performance Criteria

Carry out preparatory work for Rubble Masonry

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

- PC1.** ensure that the correct tools and tackles are selected for use in the rubble
- PC2.** estimate roughly the amount of materials required to complete a rubble masonry
- PC3.** ensure that the sub-base is prepared properly
- PC4.** ensure proper compaction of base prior to commencement of work
- PC5.** select the particular type of surface finish as per the site requirements
- PC6.** prepare the sides, edges, bed of stone to ensure proper bonding of stones
- PC7.** mix mortar for rubble masonry in specified ratio including dry & wet mix
- PC8.** identify and transfer required levels using appropriate tools prior to rubble

Check the material used for random rubble masonry

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

- PC9.** check for workability and proportion of cement mortar
- PC10.** check the quality of stones used in random rubble masonry
- PC11.** ensure proper soaking of stones prior to laying

Lay out coursed and un coursed Random Rubble Masonry with undressed or hammer dressed stones

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

- PC12.** work with both undressed and hammer dressed stones as per the requirement of the construction site
- PC13.** lay stones to build wall of un-course random rubble or course random rubble as per instruction
- PC14.** knock off all projecting corners of the laid stones with joints filled and flushed as per the requirements of the site for the un-course random rubble masonry
- PC15.** use large stones at the corners and at jambs to increase the strength as per the un-course random rubble masonry requirements



Qualification Pack

PC16. ensure proper curing of rubble masonry structure

Carry out pointing in stone masonry

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

PC17. perform raking of joints as specified prior to drying of bonding mortar

PC18. ensure that joints are cleaned and surface is wet prior to pointing

PC19. ensure lime/cement mortar for pointing is prepared as per specification

PC20. fill joints with appropriate mortar to obtain specified type of pointing

PC21. carry out various types of pointing works as per specification using appropriate tools and technique

PC22. ensure proper curing of pointing

Lay out course of Dry Rubble Masonry

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

PC23. lay and fix stones for construction of walls without use of mortar

PC24. knock off all projecting corner

Check for line, level and alignment

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

PC25. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface

PC26. check horizontal and vertical alignment using appropriate tools

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. standard practices for random rubble masonry work

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. specifications of all tools and equipments required for rubble masonry along with care and maintenance such as : Tile cutters and scribes, masonry drill bits, measuring tape/rule, trowels, straight edge, levels, wet saw, scrapers, etc

KU7. basic principle of measurement

KU8. methods of decorative finishes and basic carving work required in the rubble masonry

KU9. different types of plasters and mortar requirements for the rubble masonry works as per the specification and aesthetic requirements

KU10. various types of cement paste / adhesives used on the base

KU11. various types of stones used in rubble masonry

KU12. basic methods of stone work and finishing in rubble masonry



Qualification Pack

- KU13.** various techniques / procedures to work with undressed and hammer dressed stones used for un-course and course random rubble masonry as per the aesthetic requirements of the site
- KU14.** various types of pointing in stone masonry and its application including flush pointing weathered pointing ribbon pointing
- KU15.** different mortar mix used for pointing
- KU16.** various pointing and raking tools and techniques and method of pointing a joint as per specification
- KU17.** reference levels on the wall and its importance

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/routine work drawings, 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 efficiently with team member
- 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



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory work for Rubble Masonry</i>	3	7	-	-
PC1. ensure that the correct tools and tackles are selected for use in the rubble	-	-	-	-
PC2. estimate roughly the amount of materials required to complete a rubble masonry	-	-	-	-
PC3. ensure that the sub-base is prepared properly	-	-	-	-
PC4. ensure proper compaction of base prior to commencement of work	-	-	-	-
PC5. select the particular type of surface finish as per the site requirements	-	-	-	-
PC6. prepare the sides, edges, bed of stone to ensure proper bonding of stones	-	-	-	-
PC7. mix mortar for rubble masonry in specified ratio including dry & wet mix	-	-	-	-
PC8. identify and transfer required levels using appropriate tools prior to rubble	-	-	-	-
<i>Check the material used for random rubble masonry</i>	3	7	-	-
PC9. check for workability and proportion of cement mortar	-	-	-	-
PC10. check the quality of stones used in random rubble masonry	-	-	-	-
PC11. ensure proper soaking of stones prior to laying	-	-	-	-
<i>Lay out coursed and un coursed Random Rubble Masonry with undressed or hammer dressed stones</i>	12	28	-	-
PC12. work with both undressed and hammer dressed stones as per the requirement of the construction site	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. lay stones to build wall of un-course random rubble or course random rubble as per instruction	-	-	-	-
PC14. knock off all projecting corners of the laid stones with joints filled and flushed as per the requirements of the site for the un-course random rubble masonry	-	-	-	-
PC15. use large stones at the corners and at jambs to increase the strength as per the un-course random rubble masonry requirements	-	-	-	-
PC16. ensure proper curing of rubble masonry structure	-	-	-	-
<i>Carry out pointing in stone masonry</i>	6	14	-	-
PC17. perform raking of joints as specified prior to drying of bonding mortar	-	-	-	-
PC18. ensure that joints are cleaned and surface is wet prior to pointing	-	-	-	-
PC19. ensure lime/cement mortar for pointing is prepared as per specification	-	-	-	-
PC20. fill joints with appropriate mortar to obtain specified type of pointing	-	-	-	-
PC21. carry out various types of pointing works as per specification using appropriate tools and technique	-	-	-	-
PC22. ensure proper curing of pointing	-	-	-	-
<i>Lay out course of Dry Rubble Masonry</i>	3	7	-	-
PC23. lay and fix stones for construction of walls without use of mortar	-	-	-	-
PC24. knock off all projecting corner	-	-	-	-
<i>Check for line, level and alignment</i>	3	7	-	-
PC25. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. check horizontal and vertical alignment using appropriate tools	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0113
NOS Name	Build structures using random rubble masonry
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	2
Version	3.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each 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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- 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.
- 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.
- 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.
- 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/N0143.Mark the layout for brick/block works	30	70	-	-	100	10
CON/N0144.Carry out brick laying work	30	70	-	-	100	20
CON/N0145.Carry out block laying work	30	70	-	-	100	15
CON/N8001.Work effectively in a team to deliver desired results at the workplace	30	70	-	-	100	5
CON/N8002.Plan and organize work to meet expected outcomes	30	70	-	-	100	5
CON/N9001.Work according to personal health, safety and environment protocols at construction site	30	70	-	-	100	10
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	5



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
Total	200	450	-	-	650	70

Elective: 1 General

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0146.Carry out brick bat coba waterproofing	30	70	-	-	100	15
CON/N0147.Carry out IPS (Indian Patent Stone) flooring	30	70	-	-	100	15
Total	60	140	-	-	200	30

Elective: 2 Plastering

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0111.Apply plaster on internal & external surfaces of masonry & RCC structure	30	70	-	-	100	30
Total	30	70	-	-	100	30

Optional: 1 VDF flooring

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0148.Carry out VDF (Vaccum dewatered floor) flooring	30	70	-	-	100	15
Total	30	70	-	-	100	15



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Optional: 2 Random rubble works

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0113.Build structures using random rubble masonry	30	70	-	-	100	15
Total	30	70	-	-	100	15



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.



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Knowledge and Understanding (KU)	<p>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.</p>
Organisational Context	<p>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.</p>
Technical Knowledge	<p>Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.</p>
Core Skills/ Generic Skills (GS)	<p>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.</p>
Electives	<p>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.</p>
Options	<p>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.</p>