

## QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR CONSTRUCTION INDUSTRY

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### Introduction

#### Qualifications Pack – Mason General

**SECTOR:** CONSTRUCTION

**SUB-SECTOR:** : Real Estate and Infrastructure Construction

**OCCUPATION:** MASONRY

**REFERENCE ID:** CON/Q0103

**ALIGNED TO:** NCO-2004/7122.20

The job role is responsible for performing routine masonry works.

**Brief Job Description:** The job role performs routine masonry works such as brickwork, block work, laying paver blocks ,plastering, cementitious waterproofing,random rubble masonry and IPS/Tremix flooring works.

**Personal Attributes:** The individual is expected to be physically fit and should be able to work across various locations withstanding extreme weather/site conditions while working at any construction site. The person must be able to perform efficiently within a team, handle the various masonry tools and materials and work responsibly.

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Job Details	Qualifications Pack Code	CON/Q0103		
	Job Role	Mason General		
	Credits(NSQF)	TBD	Version number	1.0
	Sector	Construction	Drafted on	07/03/2015
	Sub Sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
	Occupation	Masonry	Next review date	23/03/2017
	NSQC Clearance on	19/05/2015		

Job Role	Mason General
Role Description	Responsible for performing routine masonry works using appropriate tools and equipments.
NSQF Level	4
Minimum Educational Qualifications*	Preferably 5 <sup>th</sup> standard
Maximum Educational Qualifications*	N.A
Training (Suggested but not mandatory)	Recommended training period of 12-16 weeks as per QP of Mason General Normal literacy of reading, writing and understanding
Minimum Job Entry Age	18 years
Experience	Desirable: 1. Non trained worker : 5 years site experience in same occupation 2. Trained worker: 2 years site experience as a certified Assistant Mason
Applicable National Occupational Standards (NOS) `	<b>Compulsory:</b> 1. <a href="#">CON/N0110: Construct masonry structures using brick / block</a> 2. <a href="#">CON/N0111: Execute plaster on internal &amp; external surfaces of masonry &amp; RCC structure</a> 3. <a href="#">CON/N0112: Carry out waterproofing works for structures using cementitious materials</a> 4. <a href="#">CON/N0113: Build structures using random rubble masonry</a> 5. <a href="#">CON/N0114: Carry out IPS / Tremix flooring</a> 6. <a href="#">CON/N8001: Work effectively in a team to deliver desired results at the workplace</a> 7. <a href="#">CON/N8002: Plan and organize work to meet expected outcomes</a>



## Qualifications Pack For Mason General



	<p>8. <a href="#"><u>CON/N9001: Work according to personal health, safety and environment protocol at construction site</u></a></p> <p><b>Optional:</b></p> <p><b>N.A</b></p>
<b>Performance Criteria</b>	As described in the relevant OS units

Definitions

Keywords / Terms	Description
Sector	Sector is 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 organization.
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 they need to meet the standard consistently. Occupational Standards are applicable both in the Indian contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
Qualifications Pack (QP)	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualification Pack is assigned a unique qualification pack code
Qualification Pack Code	Qualification Pack Code is a unique reference code that identifies a qualifications pack.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
Scope	Scope is the 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 the quality of performance required.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills / Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working 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.

Acronyms

Keywords /Terms	Description
CON	Construction
NSQF	National Skill Qualifications Framework
QP	Qualification Pack
OS	Occupational Standards
TBD	To Be Decided



CON/N0110

*Construct masonry structures using brick / block*

# National Occupational Standard



## Overview

This unit covers the skills and knowledge required by a workman for constructing various masonry structures using brick / block.

CON/N0110

*Construct masonry structures using brick / block*

National Occupational Standard

<b>Unit Code</b>	<b>CON/N0110</b>
<b>Unit Title (Task)</b>	<b>Construct masonry structures using brick / block</b>
<b>Description</b>	This unit describes the skills and knowledge required to construct various masonry structures using brick / block.
<b>Scope</b>	<p>The scope covers the following:</p> <ul style="list-style-type: none"> <li>• Carry out preparatory work before starting masonry work</li> <li>• Check material used for brickwork / block work</li> <li>• Lay brick / block for construction of load bearing / non-load bearing wall, columns and footings</li> <li>• Check the line, level and alignment</li> <li>• Carry out pointing in brick masonry</li> <li>• Perform specialized masonry works such as arches, staircase, manholes and walkways</li> <li>• Repair and restore brick / block masonry</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Carry out preparatory work before starting masonry work</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. read and interpret the basic working drawings / sketches before the commencement of brick / block work</p> <p>PC2. ensure tools are in working condition</p> <p>PC3. set out the layouts as per instructions from superiors</p> <p>PC4. check for adequate roughness/wetting of surface</p> <p>PC5. identify and transfer required levels using appropriate tools</p>
<b>Check material used for brickwork/block work</b>	<p>PC6. visual check for quality of bricks / blocks prior to use</p> <p>PC7. ensure fine aggregate is sieved as per grade requirement</p> <p>PC8. ensure bricks / blocks are soaked prior to use</p>
<b>Lay brick/block for construction of load bearing/non-load bearing wall, columns and footings.</b>	<p>PC9. select appropriate tools and equipments as per the tasks at requirement such as:</p> <ul style="list-style-type: none"> <li>• Different types of Trowels (of the right blade size)</li> <li>• Masons Hammer</li> <li>• Blocking Chisel</li> <li>• Mashing Hammer</li> <li>• Jointers</li> </ul> <p>PC10. break bricks to required shape and size using appropriate tools</p> <p>PC11. estimate the quantity of raw material required</p> <p>PC12. lay and fix bricks / blocks as per specification within tolerance limit using appropriate mortar/adhesive as per applicability</p>



CON/N0110

*Construct masonry structures using brick / block*

	<p>PC13. maintain that rise of brick work / block work is in line &amp; level</p> <p>PC14. ensure proper curing of constructed masonry structure</p>
<b>Check the line, level and alignment</b>	<p>PC15. maintain required level and specified slope for construction</p> <p>PC16. check vertical and horizontal alignment using appropriate tools</p> <p>PC17. maintain line and level of each course of brickwork using wooden / aluminum straight edge sections</p> <p>PC18. set out 90° corners using builders square or 3-4-5 method and check right angle</p>
<b>Carry out pointing in brick masonry</b>	<p>PC19. perform raking of joints as specified prior to drying of bonding mortar</p> <p>PC20. ensure that joints are cleaned and surface is wet prior to pointing</p> <p>PC21. ensure lime/cement mortar for pointing is prepared as per specification</p> <p>PC22. fill joints with appropriate mortar to obtain specified type of pointing</p> <p>PC23. carry out various types of pointing works as per specification using appropriate tools and technique</p> <p>PC24. ensure proper curing of pointing</p>
<b>Perform specialized masonry works such as arches, staircase, manholes, and walkways</b>	<p>PC25. maintain set out of tread and riser of staircase as per drawing/instruction</p> <p>PC26. maintain masonry works as per required bond, alignment and plumb</p> <p>PC27. maintain bricks/block for manholes as per required line &amp; level and providing channels and benching</p> <p>PC28. lay and fix paver block to designed pattern &amp; finish the joints as specified</p> <p>PC29. install anchors and ties for masonry arches</p> <p>PC30. install arch masonry unit by laying and aligning as per specified bond</p> <p>PC31. cut creepers around corners and full joints to obtain a flushed structure</p> <p>PC32. ensure proper curing of constructed masonry structure</p>
<b>Repair and restore brick /block masonry</b>	<p>PC33. remove deteriorated elements from masonry structures using tools such as saws drills and chisels without causing damage to adjacent structure</p> <p>PC34. reinstall brick/block to match previous or existing work</p> <p>PC35. perform proper pointing and raking of joint to obtain desired surface for exposed brick work</p> <p>PC36. ensure proper bonding with old and new surface</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard practices for masonry work</p> <p>KA2. safety rules and regulations for handling and storing required masonry tools, equipment and materials</p> <p>KA3. personal protection including the use of related safety gears &amp; equipments</p> <p>KA4. how to request for tools and materials as per set procedures</p>

CON/N0110

*Construct masonry structures using brick / block*

	KA5. maintenance of tools and equipments
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. sketches for building brick and block work structures</p> <p>KB2. basic principles of measurement</p> <p>KB3. standard specification of all masonry tools and equipments, their care and maintenance</p> <p>KB4. type and size of raw materials</p> <p>KB5. knowledge of English ,Flemish , stretcher &amp; header bond</p> <p>KB6. how to use basic leveling tools in the masonry trade such as:</p> <ul style="list-style-type: none"> <li>• Spirit level, water level, plumb bob, line thread</li> </ul> <p>KB7. how to select and use tools and equipments' such as:</p> <ul style="list-style-type: none"> <li>• 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</li> </ul> <p>KB8. how to determine vertical and horizontal alignment using appropriate tools to</p> <p>provide vertical datum lines for building measurements</p> <p>KB9. how to use the 3-4-5 method for squaring corners</p> <p>KB10. various techniques / procedures for cutting/chiseling/dressing different types of bricks to closure</p> <p>KB11. how to lay and fix brick / blocks in position</p> <p>KB12. knowledge of size of girth and joints</p> <p>KB13. cement mix proportion and its importance</p> <p>KB14. various adhesives used in block work</p> <p>KB15. basic knowledge of water cement ratio</p> <p>KB16. method of curing of masonry structures</p> <p>KB17. arch component &amp; terminology</p> <p>KB18. importance of proper joint spacing &amp; gauging in arches</p> <p>KB19. techniques for repairing &amp; finishing</p> <p>KB20. various types of pointing in brick masonry and its application including</p> <ul style="list-style-type: none"> <li>• flush pointing</li> <li>• keyed/grooved pointing</li> <li>• recessed pointing</li> <li>• struck pointing</li> </ul> <p>KB21. different mortar mix used for pointing</p> <p>KB22. various pointing and raking tools and techniques and method of pointing a joint as per specification</p>
<b>Skills (S)</b>	



CON/N0110

*Construct masonry structures using brick / block*

<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/ individual on the job needs to know and understand how to: SA1. write in one or more language, preferably the local language at the site
	<b>Reading Skills</b>
	The user/ individual on the job needs to know and understand how to: SA2. read in one or more or more language, preferably the local language at the site SA3. read sketches provided by the supervisor If required SA4. read instructions, guidelines, sign boards, safety rules and safety tags SA5. read instructions and exit routes during emergency
	<b>Oral Communication (Listening and Speaking skills)</b>
<b>B. Professional Skills</b>	The user/ individual on the job needs to know and understand how to: SA6. speak in one or more language, preferably one of the local language at the site SA7. listen and follow instructions given by the supervisors SA8. orally and effectively communicate with co-workers & subordinates
	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to: SB1. decide whether the work place is safe for working and also relevant task is not creating hazardous condition for others SB2. decide whether work is adequately defined for the day , work front is clear , and adequate materials and tools are available for performing work
	<b>Plan and Organize</b>
	The user/individual on the job needs to know and understand how to: SB3. plan work and organize required resources in coordination with team members and superiors
	<b>Customer centricity</b>
	The user/individual on the job needs to know and understand how to: SB4. complete work as per the agreed time schedule & quality
	<b>Problem solving</b>
	The user/individual on the job needs to know and understand how to: SB5. rectify the workability of cement mortar mix SB6. rectify the setting/alignment of masonry structure

CON/N0110

*Construct masonry structures using brick / block*

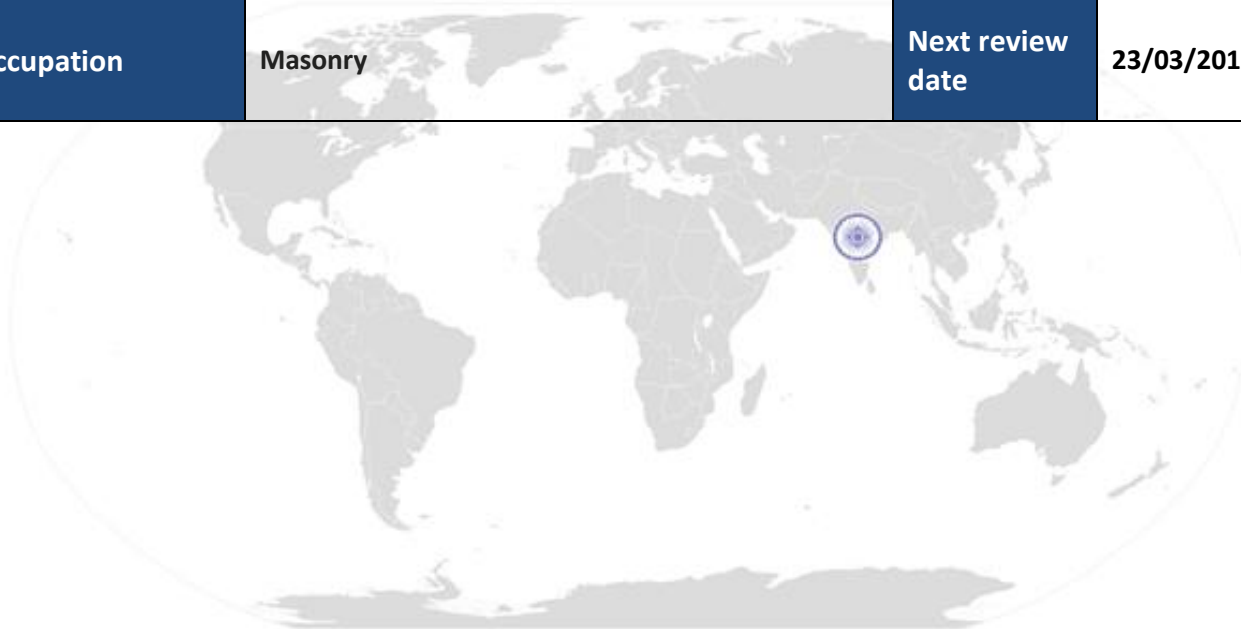
	SB7. resolve and solve any conflict within the team
	<b>Analytical Thinking</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB8. optimize resources efficiently</p> <p>SB9. assess quantity and quality of materials for day work</p> <p>SB10. minimize wastage in the workplace</p> <p>SB11. start and finish levels for day work</p> <p>SB12. maintain level of inlet and outlet in case of manhole</p> <p>SB13. maintain support for arches while executing brick / block work</p> <p>SB14. reconcile material consumption</p>
	<b>Critical Thinking</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB15. evaluate the complexity of the task and seek assistance and support wherever required</p> <p>SB16. bring to the notice of the superiors any requirement of the requisite material and resources</p> <p>SB17. check for quality of scaffolding/working platform from all aspects of safety</p> <p>SB18. bring to the notice of the superiors violation of any safety norms which may lead to accidents</p>

CON/N0110

Construct masonry structures using brick / block

## NOS Version Control

NOS Code	CON/N0110		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/03/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
Occupation	Masonry	Next review date	23/03/2017



CON/N0111

*Execute plaster on internal & external surfaces of masonry & RCC structure*

# National Occupational Standard



## Overview

This unit covers the skills and knowledge required by workman for plastering on internal & external surfaces of masonry and RCC structures.

CON/N0111

*Execute plaster on internal & external surfaces of masonry & RCC structure*

National Occupational Standard

Unit Code	CON/N0111
Unit Title (Task)	Execute plaster on internal & external surfaces of Masonry & RCC structures
Description	This unit describes the skills and knowledge required for plastering on internal and external surfaces of Masonry & RCC structures.
Scope	<p>The scope covers the following:</p> <ul style="list-style-type: none"> <li>• Carry out preparatory work before starting the plastering work</li> <li>• Check material used for plastering</li> <li>• Plaster internal &amp; external masonry &amp; RCC structures</li> <li>• Check for line, level &amp; alignment</li> </ul>
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Carry out preparatory work before starting the plastering work	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. read sketches for plastering work</p> <p>PC2. select correct materials, tools, tackles and equipments, handle and store it properly at workplace</p> <p>PC3. ensure that surface receiving plaster is prepared appropriately</p> <p>PC4. set layouts as per the specification prior to start of plastering work</p> <p>PC5. produce appropriate levels and make any grooves or lines on the surface as instructed</p>
Check material used for plastering	<p>PC6. ensure sieving of fine aggregate as per grade requirement</p> <p>PC7. check the quality of surface to be plastered</p> <p>PC8. check for quality and consistency of cement mortar mix</p>
Plaster internal & external masonry & RCC structures	<p>PC9. ensure that the correct tools and equipments are selected for plastering work as per requirement</p> <p>PC10. moisten surface sufficiently before starting of the plastering work</p> <p>PC11. ensure that cement mortar is mixed in specified proportion including addition of additives if any</p> <p>PC12. apply cement slurry on receiving surface uniformly</p> <p>PC13. apply the plastering mix of specified thickness on the surface</p> <p>PC14. finish the surface by using correct tools as per the required finish</p> <p>PC15. check for horizontal &amp; vertical alignment during and after plastering</p>
Check for line, level & alignment	<p>PC16. check for vertical and horizontal alignment using appropriate tools</p> <p>PC17. check for slope or maintain falls of the floor</p> <p>PC18. check for right angle at corner if required</p>
Knowledge and Understanding (K)	

CON/N0111

*Execute plaster on internal & external surfaces of masonry & RCC structure*

<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard practices for plastering works</p> <p>KA2. safety rules and regulation for handling and storing require masonry tools, equipment and materials</p> <p>KA3. personal protection including the use of related safety gears &amp; equipments</p> <p>KA4. how to request tools and materials as per set procedures</p> <p>KA5. maintenance of tools and equipments</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. sketches for all plastering work</p> <p>KB2. basic principles of measurement</p> <p>KB3. standard specification of all masonry tools and equipments ,their care and maintenance</p> <p>KB4. how to use basic leveling tools in the masonry trade such as:</p> <ul style="list-style-type: none"> <li>Spirit level, water level plumb bob, line thread</li> </ul> <p>KB5. how to select and use tools and equipments' such as:</p> <ul style="list-style-type: none"> <li>Finishing Trowel, Plastering Corner Trowel, Plastering Trowels, Pre-worn permashape etc.</li> <li>Plasters Hawk, Plastering Float, Plastering Feather edges, Plastering Derbies</li> <li>Plastering Joint Knives and Spreaders, Plastering Sanders and Sheets</li> <li>Measuring tape/rule, floats, brushes, straight edge, shovels, wheelbarrows, hawks, square, buckets, spade, volume box, measuring can</li> </ul> <p>KB6. gradation of sand for internal plasters</p> <p>KB7. how to determine vertical and horizontal alignment using plumb bob to provide vertical datum lines for building measurements</p> <p>KB8. how to continuously monitor the alignment of the plastering on the brick / block work using leveling tools</p> <p>KB9. different types of plasters such as sand faced plaster, rough cast plaster pebbled cast plaster, smooth cast plaster</p> <p>KB10. methods and techniques for plastering internal and external masonry and RCC structures</p> <p>KB11. various mix proportion to be used and thickness of plastering to be done on internal and external surfaces</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in one or more languages, preferably the local language at the site</p>
	<b>Reading Skills</b>



CON/N0111

*Execute plaster on internal & external surfaces of masonry & RCC structure*

	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA2. read in one or more languages, preferably the local language at the site</p> <p>SA3. read sketches provided by the supervisor to do plastering on masonry and RCC structure within the tolerance levels</p> <p>SA4. read instructions, guidelines, sign boards, safety rules and safety tags</p> <p>SA5. read instructions and exit routes during emergency</p>
	<p><b>Oral Communication (Listening and Speaking skills)</b></p>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA6. speak in one or more languages, preferably one of the local language at the site</p> <p>SA7. listen and follow instructions given by the superior</p> <p>SA8. orally and effectively communicate with co-workers and subordinates</p>
<b>B. Professional Skills</b>	<p><b>Decision Making</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. decide whether the work place is safe for working and also relevant task is not creating hazardous condition for others</p> <p>SB2. decide whether work is adequately defined for the day , work front is clear, and adequate materials and tools are available for performing the work</p>
	<p><b>Plan and Organize</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. plan work and organize required resources in coordination with team members and superiors</p>
	<p><b>Customer Centricity</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. complete work as per agreed time schedule and quality</p>
	<p><b>Problem Solving</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. rectify the workability of cement mortar mix</p> <p>SB6. rectify the setting/alignment of all masonry structure</p> <p>SB7. resolve and solve any conflict within the team</p>
	<p><b>Analytical Thinking</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB8. maintain specified thickness required for plastering work</p> <p>SB9. optimize resources efficiently</p>

CON/N0111

*Execute plaster on internal & external surfaces of masonry & RCC structure*

	<p>SB10. minimize wastage at workplace</p> <p>SB11. assess quantity and quality of materials for day work</p> <p>SB12. starting and finishing levels for day work</p> <p>SB13. reconcile material consumption</p>
	<p><b>Critical Thinking</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB14. evaluate the complexity of the tasks and seek assistance and support wherever required</p> <p>SB15. bring to the notice of the superior any requirements of the requisite material and resource</p> <p>SB16. check the quality of scaffolding/working platform from all aspects of safety</p> <p>SB17. bring to the notice of superiors violation of any safety norms which may lead to accidents</p>



CON/N0111

Execute plaster on internal & external surfaces of masonry & RCC structure

## NOS Version Control

NOS Code	CON/N0111		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/03/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
Occupation	Masonry	Next review date	23/03/2017

CON/N0112

*Carry out waterproofing work for structures using cementitious materials*

# National Occupational Standard



## Overview

This NOS covers the core skills and technical knowledge required by a workman to be proficient in carrying out waterproofing work for structures using cementitious materials at the construction site.

CON/N0112

Carry out waterproofing work for structures using cementitious materials

National Occupational Standard

Unit Code	CON/N0112
Unit Title (Task)	Carry out waterproofing work on structures using cementitious, materials
Description	This unit describes the skills and knowledge required to carry out work for the waterproofing of the structures using cementitious material
Scope	<p>The scope covers the following:</p> <ul style="list-style-type: none"> <li>• Carry out preparatory work prior to waterproofing</li> <li>• Check the materials used for waterproofing</li> <li>• Lay out waterproofing course</li> <li>• Carry out brick bat coba waterproofing</li> <li>• Check for line, level &amp; alignment</li> </ul>
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Carry out preparatory work prior to waterproofing	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. identify and correct defects including caulking by sealing joints or seams in various concrete structures</p> <p>PC2. clean and wash the surface to be water proofed</p> <p>PC3. ensure bricks are soaked overnight prior to laying a course</p> <p>PC4. prepare the surface to be waterproofed through by the following method</p> <ul style="list-style-type: none"> <li>• prime coating</li> <li>• filling holes or depressions by cementitious material</li> <li>• washing down</li> <li>• Hacking of existing RCC surface</li> <li>• chipping / scraping of protrusions</li> <li>• cleansing free of dust</li> <li>• priming or sealing of surface</li> <li>• removing sharp edges</li> </ul>
Check the materials used for waterproofing	<p>PC5. check the quality of cement and sand for usability</p> <p>PC6. check the consistency of grouting material</p> <p>PC7. check the usability of waterproofing material</p>
Laying out water proofing course	<p>PC8. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface</p> <p>PC9. prepare waterproofing cement mortar mixture as per specification for the respective surfaces</p> <p>PC10. apply waterproofing cementitious mixture to the prepared surface as specified</p> <p>PC11. finish the surface using appropriate tool as per the required surface finish</p> <p>PC12. protect waterproofed surfaces from any damage</p>

CON/N0112

*Carry out waterproofing work for structures using cementitious materials*

	PC13. check for further leakage of water
<b>Carry out brick bat coba waterproofing</b>	<p>PC14. ensure all non-structural gaps are filled prior to laying brick bat course</p> <p>PC15. prepare a cement mortar in appropriate ratio including addition of waterproofing admixture</p> <p>PC16. spread a mortar of even thickness on the surface</p> <p>PC17. lay brick bat on the prepared mortar ensuring proper placement and uniform gaps between bricks</p> <p>PC18. fill all gaps in brick bat using cement mortar</p> <p>PC19. finish the top surface smooth with cement mortar prepared in specified proportion along with admixtures</p>
<b>Check for line, level &amp; alignment</b>	<p>PC20. identify and transfer required levels using appropriate tools</p> <p>PC21. check horizontal and vertical alignment using appropriate tools</p> <p>PC22. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard practices for waterproofing works</p> <p>KA2. safety rules and regulation for handling and storing require waterproofing tools, equipment and materials</p> <p>KA3. personal protection including the use of related safety gears &amp; equipments</p> <p>KA4. how to request tools and materials as per set procedures</p> <p>KA5. maintenance of tools and equipments</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. preparation of the surface before the waterproofing</p> <p>KB2. types &amp; specification of waterproofing compounds</p> <p>KB3. usage of various tools and equipments as per the waterproofing requirements of the surface such as:</p> <ul style="list-style-type: none"> <li>• Air compressors, spray equipment &amp; grouting equipments.</li> <li>• Trowels, rollers, brushes,</li> <li>• Angle grinders, shovels,</li> <li>• Electric drills</li> <li>• Concrete mixer, wheelbarrows</li> <li>• Knives or cutting blades</li> <li>• Hammers, brooms, vacuum cleaner,</li> </ul> <p>KB4. various methods and techniques used to protect waterproofing of the surface from damage as per the site requirements</p> <p>KB5. procedure of laying brick bat coba waterproofing course</p>



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*Carry out waterproofing work for structures using cementitious materials*

	KB6. checks for water leakages
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/ individual on the job needs to know and understand how to: SA1. write in one or more language, preferably the local language at the site
	<b>Reading Skills</b>
	The user/ individual on the job needs to know and understand how to: SA2. read in one or more language, preferably the local language at the site SA3. read sketches provided by the superior to do waterproofing work SA4. read instructions, guidelines, sign boards, safety rules and safety tags SA5. read instructions and exit routes during emergency
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/ individual on the job needs to know and understand how to: SA6. speak in one or more language, preferably one of the local language at the site SA7. listen and follow instructions given by the superior SA8. orally and effectively communicate with co-worker and subordinate
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to: SB1. decide whether work place is safe for working and also relevant task is not creating hazardous condition for others SB2. decide whether work is adequately defined for the day , work front is clear , and adequate materials and tools are available for performing the work
	<b>Plan and Organise</b>
	The user/individual on the job needs to know and understand how to: SB3. plan work and organize required resources in coordination with team member and superiors
	<b>Customer Centricity</b>
	The user/individual on the job needs to know and understand how to: SB4. complete work as per the agreed time schedule & quality
	<b>Problem solving</b>

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*Carry out waterproofing work for structures using cementitious materials*

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. rectify the workability of cementitious mortar mix</p> <p>SB6. resolve and solve any conflict within the team</p>
	<b>Analytical Thinking</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. check &amp; mark the position of leakage</p> <p>SB8. optimize resources efficiently</p> <p>SB9. minimize wastage in the workplace</p> <p>SB10. assess quantity and quality of materials for day work</p> <p>SB11. reconcile material consumption</p>
	<b>Critical Thinking</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB12. evaluate the complexity of the task and seek assistance and support wherever required</p> <p>SB13. bring to the notice of the superiors any requirement of the requisite resources</p> <p>SB14. bring to the notice of superiors violation of any safety norms which may lead to accidents</p> <p>SB15. check the quality of scaffolding/working platform from all aspects of safety</p> <p>SB16. analyze resources, work front &amp; raw materials</p>

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Carry out waterproofing work for structures using cementitious materials

## NOS Version Control

NOS Code	CON/N0112		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/03/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
Occupation	Masonry	Next review date	23/03/2017

CON/N0113

*Build structures using random rubble masonry*

# National Occupational Standard



## Overview

This unit covers the skills and knowledge required for an individual to be proficient in executing work on random rubble masonry

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*Build structures using random rubble masonry*

National Occupational Standard

Unit Code	CON/N0113
Unit Title (Task)	Build structures using Random Rubble masonry
Description	This unit describes the skills and knowledge required to build structures using random rubble masonry
Scope	<p>The scope covers the following:</p> <ul style="list-style-type: none"> <li>• Carry out preparatory work for rubble masonry</li> <li>• Check the material used for random rubble masonry</li> <li>• Lay out coursed and un-coursed Random Rubble Masonry with undressed or hammer dressed stones</li> <li>• Carry out pointing in stone masonry</li> <li>• Lay out course of Dry Rubble Masonry</li> <li>• Check for line, level and alignment</li> </ul>
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Carry out preparatory work for Rubble Masonry	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. ensure that the correct tools and tackles are selected for use in the rubble masonry</p> <p>PC2. roughly estimate amount of materials required to complete a rubble masonry job work</p> <p>PC3. ensure that the sub-base is prepared properly</p> <p>PC4. ensure proper compaction of base prior to commencement of work</p> <p>PC5. select the particular type of surface finish as per the site requirements</p> <p>PC6. prepare the sides, edges, bed of stone to ensure proper bonding of stones</p> <p>PC7. mix mortar for rubble masonry in specified ratio including dry &amp; wet mix</p> <p>PC8. identify and transfer required levels using appropriate tools prior to rubble masonry work</p>
Check the material used for random rubble masonry	<p>PC9. check for workability and proportion of cement mortar</p> <p>PC10. check the quality of stones used in random rubble masonry</p> <p>PC11. ensure proper soaking of stones prior to laying</p>
Lay out coursed and un coursed Random Rubble Masonry with undressed or hammer dressed stones	<p>PC12. work with both undressed and hammer dressed stones as per the requirement of the construction site</p> <p>PC13. lay stones to build wall of un-course random rubble or course random rubble as per instruction</p> <p>PC14. knock off all projecting corners of the laid stones with joints filled and flushed</p>

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*Build structures using random rubble masonry*

	<p>as per the requirements of the site for the un-course random rubble masonry</p> <p>PC15. use large stones at the corners and at jambs to increase the strength as per the un-course random rubble masonry requirements</p> <p>PC16. ensure proper curing of rubble masonry structure</p>
<b>Carry out pointing in stone masonry</b>	<p>PC17. perform raking of joints as specified prior to drying of bonding mortar</p> <p>PC18. ensure that joints are cleaned and surface is wet prior to pointing</p> <p>PC19. ensure lime/cement mortar for pointing is prepared as per specification</p> <p>PC20. fill joints with appropriate mortar to obtain specified type of pointing</p> <p>PC21. carry out various types of pointing works as per specification using appropriate tools and technique</p> <p>PC22. ensure proper curing of pointing</p>
<b>Lay out course of Dry Rubble Masonry</b>	<p>PC23. lay and fix stones for construction of walls without use of mortar</p> <p>PC24. knock off all projecting corner</p>
<b>Check for line, level and alignment</b>	<p>PC25. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface</p> <p>PC26. check horizontal and vertical alignment using appropriate tools</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard practices for random rubble masonry work</p> <p>KA2. safety rules and regulation for handling and storing required masonry tools, equipment and materials</p> <p>KA3. personal protection including the use of related safety gears &amp; equipments</p> <p>KA4. How to request tools and materials as per set procedures</p> <p>KA5. maintenance of tools and equipments</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. standard specifications of all tools and equipments required for rubble masonry along with care and maintenance such as :</p> <ul style="list-style-type: none"> <li>Tile cutters and scribes, masonry drill bits, measuring tape/rule, trowels, straight edge, levels, wet saw, scrapers, etc.</li> </ul> <p>KB2. basic principle of measurement</p> <p>KB3. methods of decorative finishes and basic carving work required in the rubble masonry</p> <p>KB4. different types of plasters and mortar requirements for the rubble masonry works as per the specification and aesthetic requirements</p> <p>KB5. various types of cement paste / adhesives used on the base</p> <p>KB6. various types of stones used in rubble masonry</p> <p>KB7. basic methods of stone work and finishing in rubble masonry</p> <p>KB8. various techniques / procedures to work with undressed and hammer dressed</p>



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*Build structures using random rubble masonry*

	<p>stones used for un-course and course random rubble masonry as per the aesthetic requirements of the site</p> <p>KB9. various types of pointing in stone masonry and its application including</p> <ul style="list-style-type: none"> <li>• flush pointing</li> <li>• weathered pointing</li> <li>• ribbon pointing</li> </ul> <p>KB10. different mortar mix used for pointing</p> <p>KB11. various pointing and raking tools and techniques and method of pointing a joint as per specification</p> <p>KB12. reference levels on the wall and its importance</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/ individual on the job needs to know and understand how to:
	SA1. write in one or more language, preferably the local language at the site
	<b>Reading Skills</b>
	The user/ individual on the job needs to know and understand how to:
	<p>SA2. read in one or more language, preferably the local language at the site</p> <p>SA3. read sketches provided by the superior to do random rubble masonry work</p> <p>SA4. read instructions, guidelines, sign boards, safety rules and safety tags</p> <p>SA5. read instructions and exit routes during emergency</p>
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/ individual on the job needs to know and understand how to:
	SA6. speak in one or more language, preferably one of the local language at the site
	SA7. listen and follow instructions communicated by supervisors
	SA8. orally and efficiently communicate with team member
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to:
	<p>SB1. decide whether work place is safe for working and also relevant task is not creating hazardous condition for others</p> <p>SB2. decide whether work is adequately defined for the day, work front is clear, and adequate materials and tools are available for performing the work</p>
	<b>Plan and Organise</b>
<b>B. Professional Skills</b>	The user/individual on the job needs to know and understand how to:
	SB3. plan & organize required resources in coordination with team members and

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*Build structures using random rubble masonry*

	superiors
	<b>Customer centricity</b>
	The user/individual on the job needs to know and understand how to: SB4. complete work as per the agreed time schedule & quality
	<b>Problem solving</b>
	The user/individual on the job needs to know and understand how to: SB5. rectify the workability of cement mortar mix SB6. rectify the setting/alignment of masonry structure SB7. resolve and solve any conflict within the team SB8. highlight to the superiors in case any corrective action is required during the rubble masonry works
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB9. optimize resources efficiently SB10. minimize wastage in the workplace SB11. assess quantity and quality of materials for day work SB12. starting and finishing levels for day work SB13. ensure correct placement and fixing of stones as per specification SB14. reconcile material consumption
	<b>Critical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB15. evaluate the complexity of the task and seek assistance and support wherever required SB16. bring to the notice of the superiors any requirement of the requisite resources SB17. check the quality of scaffolding/working platform from all aspects of safety SB18. bring to the notice of the superiors violation of any safety norms which may lead to accidents

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*Build structures using random rubble masonry*

## **NOS Version Control**

NOS Code	CON/N0113		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/03/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
Occupation	Masonry	Next review date	23/03/2017



# National Occupational Standard



## Overview

This unit covers the skills and knowledge for an individual to be proficient in executing IPS and Tremix flooring works.

CON/N0114

Carry out IPS / Tremix flooring works

National Occupational Standard

Unit Code	CON/N0114
Unit Title (Task)	Carry out IPS / Tremix flooring works
Description	This unit describes the skills and knowledge required to work on IPS & Tremix flooring
Scope	<p>The scope covers the following:</p> <ul style="list-style-type: none"> <li>Carry out preparatory work prior to IPS / Tremix flooring</li> <li>Check for line, level and alignment.</li> <li>Check the materials used for IPS / Tremix flooring in case of manual mixing</li> <li>Check the materials used for IPS / Tremix flooring in case of machine mixing</li> <li>Carry out IPS flooring</li> <li>Carry out Tremix / VDF flooring</li> </ul>
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Carry out preparatory work prior to IPS / Tremix flooring	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. inspect the work area prior to concreting, ensure leveling incase of any undulations observed on the surface prior to concreting</p> <p>PC2. ensure surface is prepared appropriately and report any deviation in slope and alignment in PCC</p> <p>PC3. report any gaps in formwork to avoid leakage</p> <p>PC4. report any misalignment in formwork/reinforcement and ensure proper cover for reinforcement is provided</p>
Check for line, level and alignment	<p>PC5. mark reference level on the wall &amp; transfer this marking to all floor locations using appropriate tools</p> <p>PC6. mark flooring thickness level and provide dummy level dots at specified intervals for ensuring required slope</p>
Check the materials used for IPS / Tremix flooring in case of manual mixing	<p>PC7. check the grade of cement prior to use in case of manual mixing</p> <p>PC8. ensure fine aggregate is sieved as per grade requirement</p> <p>PC9. check that concrete is mixed in appropriate proportion</p>
Check the materials used for IPS/Tremix flooring in case of machine mixing	<p>PC10. visually assess the concrete mix for usability and workability</p> <p>PC11. notify superiors for detrimental quality of concrete</p> <p>PC12. ensure specified concrete mix is used at allocated location</p> <p>PC13. check that panels prepared are of specified size and type</p>

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*Carry out IPS / Tremix flooring works*

<p><b>Carry out IPS Flooring work</b></p>	<p>PC14. fix the glass, aluminum or brass strip in cement mortar with their tops at appropriate level and according to slope</p> <p>PC15. ensure panels are made as per specified size</p> <p>PC16. ensure concrete is poured in alternate panels/specified panels as per requirement</p> <p>PC17. remove excess cement slurry and any marks on the surface</p> <p>PC18. level the concrete surface with a straight edge and to the required finish with a wooden float / trowel</p> <p>PC19. spread cement punning over the IPS concrete for smooth finish surface and allow it to soak into the concrete, as per requirement</p> <p>PC20. provide construction joints and expansion joints as per requirement</p> <p>PC21. level poured concrete to the specified levels maintaining required slope</p> <p>PC22. ensure curing of the finished floor surface for the specified time</p>
<p><b>Carry out Tremix / VDF Flooring work</b></p>	<p>PC23. level the surface and lay stone soling / boulder soling layer</p> <p>PC24. lay the floor with slope maintained in PCC work above the stone soling</p> <p>PC25. remove excess water from the top layer of wet concrete without removing cement of sand particles through vacuum de-watering machines</p> <p>PC26. ensure floater work within green concrete surface</p> <p>PC27. carry out Tremix flooring in specified panel on RCC floors ensuring intactness of rebar and cover</p> <p>PC28. cut grooves on concrete at specified intervals for construction joints</p> <p>PC29. provide expansion joints as per requirement</p> <p>PC30. carry out curing of finished concrete as per specifications</p> <p>PC31. ensure finished levels have required slope</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard practices for masonry work</p> <p>KA2. safety rules and regulations for handling &amp; storing required masonry tools &amp; materials</p> <p>KA3. personal protection including the use of related safety gears &amp; equipments</p> <p>KA4. how to request tools and materials as per set procedures</p> <p>KA5. maintenance of tools and equipments</p>
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to use all masonry tools along with some specialized tools for Tremix flooring such as :</p> <ul style="list-style-type: none"> <li>• Vacuum de-watering Pump</li> <li>• Floater Machine</li> <li>• Double beam Screen Vibrator</li> </ul>



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*Carry out IPS / Tremix flooring works*

	<p>KB2. process to prepare the sub-base by watering and ramming</p> <p>KB3. provide for adequate slope in PCC (Plain Cement Concrete) in a base course</p> <p>KB4. how to make reference levels and transfer the markings to all locations where flooring is to be done</p> <p>KB5. various type and grade of cement used, affect of water /cement ratio and type of aggregates</p> <p>KB6. different mix proportion/grade of concrete</p> <p>KB7. sequence of concrete pouring and placing</p> <p>KB8. manual mixing of concrete and nominal mix proportions</p> <p>KB9. cover to reinforcement with respect to size of reinforcement</p> <p>KB10. how to pour of concrete in alternate panels</p> <p>KB11. how to avoid shrinkage cracks in concrete</p> <p>KB12. various admixtures used in concreting</p> <p>KB13. different type of vibrators, their influence area and use</p> <p>KB14. construction and expansion joints</p> <p>KB15. cutting tools for providing joints</p> <p>KB16. final toweling process before the concrete is hardened</p> <p>KB17. excess water removal process using Vacuum dewatered machine</p> <p>KB18. use of screed vibrator</p> <p>KB19. hardener usage along with floater machine (if required) at the time of finishing the floor surface to increase abrasion resistance of the floor</p> <p>KB20. how to provide for space for narrow passage for operating float vibrator along a wall</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in one or more language, preferably the local language at the site</p>
	<b>Reading Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA2. read in one or more language, preferably the local language at the site</p> <p>SA3. read sketches provided by the superior to do IPS /Tremix flooring works</p> <p>SA4. read instructions, guidelines, sign boards, safety rules and safety tags</p> <p>SA5. read instructions and exit routes during emergency</p>
	<b>Oral Communication (Listening and Speaking skills)</b>

CON/N0114

*Carry out IPS / Tremix flooring works*

<b>B. Professional Skills</b>	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA6. speak in one or more language, preferably one of the local language at the site</p> <p>SA7. listen and follow instructions given by the superior</p> <p>SA8. orally communicate with team member</p>
	<b>Decision Making</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB1. decide whether work place is safe for working and also relevant task is not creating hazardous condition for others</p> <p>SB2. decide whether work is adequately defined for the day , work front is clear , and adequate materials and tools are available for performing the work</p>
	<b>Plan and Organize</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. plan work and organize required recourses in co-ordination with team members and superiors</p>
	<b>Customer centricity</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. complete work as per agreed time schedule and quality</p>
	<b>Problem Solving</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. resolve and solve any conflict within the team</p> <p>SB6. bring any noticeable issues faced (related to the flooring) to the attention of the superiors in a timely manner</p> <p>SB7. assess quantity and quality of materials for day work</p> <p>SB8. check quality of scaffolding / working platform from all aspects of safety</p> <p>SB9. dispose of construction debris &amp; keep workplace safe and tidy for working</p>
	<b>Analytical Thinking</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB10. optimize resources efficiently</p> <p>SB11. minimize wastage in the workplace</p> <p>SB12. starting and finishing levels for day work</p> <p>SB13. reconcile material consumption</p>
	<b>Critical Thinking</b>
	<p>The user/individual on the job needs to know and understand how to:</p>

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Carry out IPS / Tremix flooring works

	<p>SB14. evaluate the complexity of the task and seek assistance and support wherever required</p> <p>SB15. bring to the notice of the superiors any requirement of the requisite resources</p> <p>SB16. bring to the notice of the superiors violation of any safety norms which may lead to accidents</p>
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CON/N0114

Carry out IPS / Tremix flooring works

## NOS Version Control

NOS Code	CON/N0114		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/03/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
Occupation	Masonry	Next review date	23/03/2017

CON/N8001

*Work effectively in a team to deliver desired results at the workplace*

# National Occupational Standard



## Overview

This NOS covers the skill and knowledge required to work effectively within a team to achieve the desired results.

CON/N8001

*Work effectively in a team to deliver desired results at the workplace*

National Occupational Standard

<b>Unit Code</b>	<b>CON/N8001</b>
<b>Unit Title (Task)</b>	<b>Work effectively in a team to deliver desired results at the workplace</b>
<b>Description</b>	This unit describes the skills and knowledge required to work effectively within a team to achieve the desired results.
<b>Scope</b>	<p>The scope covers the following:</p> <ul style="list-style-type: none"> <li>Interact and communicate effectively with co-workers, superiors and sub-ordinates across different teams</li> <li>Support co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Interact and communicate in effective and conclusive manner</b>	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. pass on work related information/ requirement clearly to the team members</p> <p>PC2. inform co-workers and superiors about any kind of deviations from work</p> <p>PC3. address the problems effectively and report if required to immediate supervisor appropriately</p> <p>PC4. receive instructions clearly from superiors and respond effectively on same</p> <p>PC5. communicate to team members/subordinates for appropriate work technique and method</p> <p>PC6. seek clarification and advice as per requirement and applicability</p>
<b>Support co-workers to execute project requirements</b>	<p>PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams</p> <p>PC8. work together with co-workers in a synchronized manner</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. own roles and responsibilities</p> <p>KA2. importance of effective communication and establishing strong working relationships with co-workers</p> <p>KA3. risks of a failure in teamwork in terms of effects on project outcomes, timelines, safety at the construction site, etc.</p> <p>KA4. different modes of communication, and its appropriate usage</p> <p>KA5. importance of creating healthy and cooperative work environment among the gangs of workers</p>

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*Work effectively in a team to deliver desired results at the workplace*

<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different activities within his work area where an interaction with other workers is required</p> <p>KB2. applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement</p> <p>KB3. importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timelines, safety, risks at the construction project site</p> <p>KB4. importance and need of supporting co-workers facing problems for smooth functioning of work</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in one or more languages, preferably the local language at the site</p>
	<b>Reading Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA2. read in one or more languages, preferably the local language at the site</p> <p>SA3. read communication from team members regarding work completed, materials used, tools and tackles used, support required</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. speak in one or more languages, preferably one of the local language at the site</p> <p>SA5. listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes</p> <p>SA6. orally communicate with co-workers regarding support required to complete the respective work</p>
<b>B. Professional Skills</b>	<b>Decision Making</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. decide on what information is to be shared with co-workers within the team or from interfacing gang of workers</p>
	<b>Plan and Organise</b>



CON/N8001

*Work effectively in a team to deliver desired results at the workplace*

	The user/individual on the job needs to know and understand how to: SB2. plan work and organize required resources in coordination with team members
	<b>Customer centricity</b>
	The user/individual on the job needs to know and understand how to: SB3. complete all assigned task in coordination with team members
	<b>Problem solving</b>
	The user/individual on the job needs to know and understand how to: SB4. take initiative in resolving issues among co-workers or report the same to superiors
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB5. ensure best ways of coordination among team members SB6. communicate with co-workers considering their educational / social background
	<b>Critical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB7. evaluate the complexity of task and determine if any guidance is required from superiors

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*Work effectively in a team to deliver desired results at the workplace*

## NOS Version Control

NOS Code	CON/N8001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/03/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
Occupation	Masonry	Next review date	23/03/2017



# National Occupational Standard



## Overview

This NOS covers the skills and knowledge required to plan and organize work in order to meet expected quality in established time frame.

CON/N8002

*Plan and organize work to meet expected outcomes*

National Occupational Standard

<b>Unit Code</b>	<b>CON/N8002</b>
<b>Unit Title (Task)</b>	<b>Plan and organize work to meet expected outcomes</b>
<b>Description</b>	This unit describes the knowledge and the skills required for an individual to plan and organize own work in order to meet expected outcome.
<b>Scope</b>	<p>This scope covers the following:</p> <ul style="list-style-type: none"> <li>• Prioritize work activities to achieve desired results</li> <li>• Organize desired resources prior to commencement of work</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Prioritize work activities to achieve desired results</b>	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. understand clearly the targets and timelines set by superiors</p> <p>PC2. plan activities as per schedule and sequence</p> <p>PC3. provide guidance to the subordinates to obtain desired outcome</p> <p>PC4. plan housekeeping activities prior to and post completion of work</p>
<b>Organize desired resources prior to commencement of work</b>	<p>PC5. list and arrange required resources prior to commencement of work</p> <p>PC6. select and employ correct tools, tackles and equipment for completion of desired work</p> <p>PC7. complete the work with allocated resources</p> <p>PC8. engage allocated manpower in an appropriate manner</p> <p>PC9. use resources in an optimum manner to avoid any unnecessary wastage</p> <p>PC10. employ tools, tackles and equipment with care to avoid damage to the same</p> <p>PC11. organize work output, materials used, tools and tackles deployed,</p> <p>PC12. processes adopted to be in line with the specified standards and instructions</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. importance of proper housekeeping</p> <p>KA2. policies, procedures and work targets set by superiors</p> <p>KA3. roles and responsibilities in executing the work for subordinates and self</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. standard practices of work to be adopted for assigned task</p> <p>KB2. how to use available resources in a judicious and appropriate manner to minimize wastages or damage</p>

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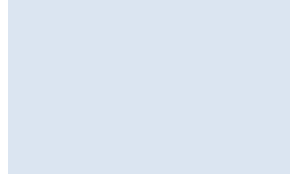
*Plan and organize work to meet expected outcomes*

Skills (S)	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/ individual on the job needs to know and understand how to: SA1. write in one or more language, preferably the local language at the site SA2. list out the assigned works and targets
	<b>Reading Skills</b>
	The user/ individual on the job needs to know and understand how to: SA3. read in one or more language, preferably the local language at the site SA4. read communication from co-workers, superiors and notices from other departments as per requirement of the level
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/ individual on the job needs to know and understand how to: SA5. speak in one or more language, preferably one of the local language at the site SA6. listen and follow communication shared by co-workers regarding standard work processes, resources available, timelines, etc. SA7. communicate effectively with co-workers and subordinates
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to: SB1. decide on what sequence is to be adopted for execution of work
	<b>Plan and Organise</b>
	The user/individual on the job needs to know and understand how to: SB2. plan and organize the materials, tools, tackles and equipment required to execute the work
	<b>Customer centricity</b>
	The user/individual on the job needs to know and understand how to: SB3. complete all assigned task with proper planning and organizing
	<b>Problem solving</b>
	The user/individual on the job needs to know and understand how to: SB4. arrange or seek help to arrange for material, tools and tackles in case of shortfall
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB5. analyze areas of work which could result in a delay of work, wastage of

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*Plan and organize work to meet expected outcomes*

	material or damage to tools and tackles
	<b>Critical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB6. evaluate potential solutions to minimize avoidable delays and wastages at the construction site



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Plan and organize work to meet expected outcomes

## NOS Version Control

NOS Code	CON/N8002		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/03/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
Occupation	Masonry	Next review date	23/03/2017





CON/N9001

*Work according to personal health, safety and environment protocol at construction site*

# National Occupational Standard



## Overview

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

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Work according to personal health, safety and environment protocol at construction site

National Occupational Standard

<b>Unit Code</b>	<b>CON/N9001</b>
<b>Unit Title (Task)</b>	<b>Work according to personal health, safety and environment protocol at construction site</b>
<b>Description</b>	This NOS covers the skill and knowledge required for an individual to work according to personal health, safety and environmental protocol at construction site
<b>Scope</b>	<p>The scope covers the following:</p> <ul style="list-style-type: none"> <li>Follow safety norms as defined by organization</li> <li>Adopt healthy &amp; safe work practices</li> <li>Implement good housekeeping and environment protection process and activities</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Follow safety norms as defined by organization</b>	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority</p> <p>PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities</p> <p>PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable</p> <p>PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site</p> <p>PC5. identify near miss, unsafe condition and unsafe act</p>
<b>Adopt healthy &amp; safe work practices</b>	<p>PC6. use appropriate Personal Protective Equipment (PPE) as per work requirements including:</p> <ul style="list-style-type: none"> <li>Head Protection (Helmets)</li> <li>Ear protection</li> <li>Fall Protection</li> <li>Foot Protection</li> <li>Face and Eye Protection,</li> <li>Hand and Body Protection</li> <li>Respiratory Protection (if required)</li> </ul> <p>PC7. handle all required tools, tackles, materials &amp; equipment safely</p> <p>PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines</p> <p>PC9. install and apply properly all safety equipment as instructed</p> <p>PC10. follow safety protocol and practices as laid down by site EHS department</p>

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Work according to personal health, safety and environment protocol at construction site

<b>Implement good housekeeping practices</b>	<p>PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes</p> <p>PC12. apply ergonomic principles wherever required</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines</p> <p>KA2. types of safety hazards at construction sites</p> <p>KA3. basic ergonomic principles as per applicability</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. the procedure for responding to accidents and other emergencies at site</p> <p>KB2. appropriate personal protective equipment to used based on various working conditions</p> <p>KB3. importance of handling tools, equipment and materials as per applicable</p> <p>KB4. health and environments effect of construction materials as per applicability</p> <p>KB5. various environmental protection methods as per applicability</p> <p>KB6. storage of waste including the following at appropriate location:</p> <ul style="list-style-type: none"> <li>• non-combustible scrap material and debris</li> <li>• combustible scrap material and debris</li> <li>• general construction waste and trash (non-toxic, non-hazardous)</li> <li>• any other hazardous wastes</li> <li>• any other flammable wastes</li> </ul> <p>KB7. how to use hazardous material, in a safe and appropriate manner as per applicability</p> <p>KB8. safety relevant to tools, tackles, &amp; requirement as per applicability</p> <p>KB9. housekeeping activities relevant to task</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in one or more language, preferably the local language at the site</p> <p>SA2. fill safety formats for near miss, unsafe conditions and safety suggestions</p>
	<b>Reading Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA3. read in one or more language, preferably the local language at the site</p> <p>SA4. read sign boards, notice boards relevant to safety</p>

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Work according to personal health, safety and environment protocol at construction site

<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/ individual on the job needs to know and understand how to:
	SA5. speak in one or more language, preferably one of the local language at the site
	SA6. listen instructions / communication shared by site EHS and superiors regarding site safety, and conducting tool box talk
	SA7. communicate reporting of site conditions, hazards, accidents, etc.
	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to:
	SB1. not create unsafe conditions for others
	SB2. keep the workplace clean and tidy
	<b>Plan and Organise</b>
	N.A
	<b>Customer centricity</b>
	N.A
	<b>Problem solving</b>
	The user/individual on the job needs to know and understand how to:
	SB3. identify safety risks that affect the health, safety and environment for self and others working in the vicinity, tackle it if within limit or report to appropriate authority
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to:
	SB4. assess and analyze areas which may affect health, safety and environment protocol on the site
	<b>Critical Thinking</b>
	The user/individual on the job needs to know and understand how to:
	SB5. ensure personal safety behavior
	SB6. respond to emergency

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Work according to personal health, safety and environment protocol at construction site

## NOS Version Control

NOS Code	CON/N9001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/03/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/03/2015
Occupation	Masonry	Next review date	23/03/2017

*Assessment Criteria for Mason General*

## **CRITERIA FOR ASSESSMENT OF TRAINEES**

**Job Role** Mason General

**Qualification Pack** CON/Q0103

**Sector Skill Council** Construction

### **Guidelines for Assessment**

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
5. The passing percentage for each QP will be 70%. To pass the Qualification Pack, every trainee should score a minimum of 70% individually in each NOS.
6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.
7. The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
9. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified timeframe set by SSC.
10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

				Marks Allocation	
		Total Mark	Out Of	Theory	Skills Practical
CON/N0110: Construct masonry	PC1. read and interpret the basic working drawings / sketches before the commencement of brick / block work	100	2.5	0.5	2

*Assessment Criteria for Mason General*

<b>structures using brick / block</b>	PC2. ensure tools are in working condition		1.25	0.25	1
	PC3. set out the layouts as per instructions from superiors		2.25	0.25	2
	PC4. check for adequate roughness/wetting of surface		1.25	0.25	1
	PC5. identify and transfer required levels using appropriate tools		2.75	0.75	2
	PC6. visual check for quality of bricks / blocks prior to use		5	1	4
	PC7. ensure fine aggregate is sieved as per grade requirement		2.5	0.5	2
	PC8. ensure bricks / blocks are soaked prior to use		2.5	0.5	2
	PC9. select appropriate tools and equipments as per the tasks at requirement such as: <ul style="list-style-type: none"> <li>• Different types of Trowels (of the right blade size)</li> <li>• Masons Hammer</li> <li>• Blocking Chisel</li> <li>• Mashing Hammer</li> <li>• Jointers</li> </ul>		3.5	0.5	3
	PC10. break bricks to required shape and size using appropriate tools		4	1	3
	PC11. estimate the quantity of raw material required		2.5	0.5	2
	PC12. lay and fix bricks / blocks as per specification within tolerance limit using appropriate mortar/adhesive as per applicability		6	1	5
	PC13. maintain that rise of brick work / block work is in line & level		2.5	0.5	2
	PC14. ensure proper curing of constructed masonry structure		2	1	1
	PC15. maintain required level and specified slope for construction		2.5	0.5	2
	PC16. check vertical and horizontal alignment using appropriate tools		2.5	0.5	2
	PC17. maintain line and level of each course of brickwork using wooden / aluminium straight edge sections		2.5	0.5	2
	PC18. set out 90° corners using builders square or 3-4-5 method and check right angle		2.5	0.5	2
	PC19. perform proper pointing and raking of joint to obtain desired surface for exposed brick work		2.25	0.25	2



*Assessment Criteria for Mason General*

	PC20. ensure proper bonding with old and new surface		2.25	0.25	2
	PC21. ensure lime/cement mortar for pointing is prepared as per specification		1.5	0.5	1
	PC22. fill joints with appropriate mortar to obtain specified type of pointing		5.5	1.5	4
	PC23. carry out various types of pointing works as per specification using appropriate tools and technique		6	1	5
	PC24. ensure proper curing of pointing		2.5	0.5	2
	PC25. maintain set out of tread and riser of staircase as per drawing/instruction		3.5	0.5	3
	PC26. maintain masonry works as per required bond, alignment and plumb		1.5	0.5	1
	PC27. maintain bricks/block for manholes as per required line & level and providing channels and benching		4	1	3
	PC28. lay and fix paver block to designed pattern & finish the joints as specified		2.5	0.5	2
	PC29. install anchors and ties for masonry arches		1.25	0.25	1
	PC30. install arch masonry unit by laying and aligning as per specified bond		4	1	3
	PC31. cut creepers around corners and full joints to obtain a flushed structure		2.25	0.25	2
	PC32. ensure proper curing of constructed masonry structure		1.25	0.25	1
	PC33. remove deteriorated elements from masonry structures using tools such as saws drills and chisels without causing damage to adjacent structure		2.25	0.25	2
	PC34. reinstall brick/block to match previous or existing work		2.25	0.25	2
	PC35. perform proper pointing and raking of joint to obtain desired surface for exposed brick work		2.25	0.25	2
	PC36. ensure proper bonding with old and new surface		2.25	0.25	2
		<b>Total</b>	100	20	80
<b>CON/N0111: Execute plaster on internal &amp; external Masonry &amp; RCC structure</b>	PC1. read sketches for plastering work	<b>100</b>	2.5	0.5	2
	PC2. select correct materials, tools, tackles and equipments, handle and store it properly at workplace		1.25	0.25	1
	PC3. ensure that surface receiving plaster is prepared appropriately		2.5	0.5	2

*Assessment Criteria for Mason General*

	PC4. set layouts as per the specification prior to start of plastering work		2.5	0.5	2
	PC5. produce appropriate levels and make any grooves or lines on the surface as instructed		1.25	0.25	1
	PC6. ensure sieving of fine aggregate as per grade requirement		2.5	0.5	2
	PC7. check the quality of surface to be plastered		2.5	0.5	2
	PC8. check for quality and consistency of cement mortar mix		5	1	4
	PC9. ensure that the correct tools and equipments are selected for plastering work as per requirement		10	2	8
	PC10. moisten surface sufficiently before starting of the plastering work		5	1	4
	PC11. ensure that cement mortar is mixed in specified proportion including addition of additives if any		5	1	4
	PC12. apply cement slurry on receiving surface uniformly		5	1	4
	PC13. apply the plastering mix of specified thickness on the surface		10	2	8
	PC14. finish the surface by using correct tools as per the required finish		10	2	8
	PC15. check for horizontal & vertical alignment during and after plastering		5	1	4
	PC16. check for vertical and horizontal alignment using appropriate tools		10	2	8
	PC17. check for slope or maintain falls of the floor		10	2	8
	PC18. check for right angle at corner if required		10	2	8
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N0112:</b> Carry out waterproofing work for structures using cementitious materials	PC1. identify and correct defects including caulking by sealing joints or seams in various concrete structures	<b>100</b>	2.5	0.5	2
	PC2. clean and wash the surface to be water proofed		2.25	0.25	2
	PC3. ensure bricks are soaked overnight prior to laying a course		1.25	0.25	1
	PC4. prepare the surface to be waterproofed through by the following method <ul style="list-style-type: none"> <li>• prime coating</li> <li>• filling holes or depressions by cementitious material</li> <li>• washing down</li> <li>• Hacking of existing RCC surface</li> <li>• chipping / scraping of protrusions</li> <li>• cleansing free of dust</li> </ul>		4	1	3

*Assessment Criteria for Mason General*

	<ul style="list-style-type: none"> <li>priming or sealing of surface</li> <li>removing sharp edges</li> </ul>				
	PC5. check the quality of cement and sand for usability		5	1	4
	PC6. check the consistency of grouting material		2.5	0.5	2
	PC7. check the usability of waterproofing material		2.5	0.5	2
	PC8. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface		5	1	4
	PC9. prepare waterproofing cement mortar mixture as per specification for the respective surfaces		6	1	5
	PC10. apply waterproofing cementitious mixture to the prepared surface as specified		10	2	8
	PC11. finish the surface using appropriate tool as per the required surface finish		5	1	4
	PC12. protect waterproofed surfaces from any damage		4	1	3
	PC13. check for further leakage of water		5	1	4
	PC14. ensure all non-structural gaps are filled prior to laying brick bat course		5	1	4
	PC15. prepare a cement mortar in appropriate ratio including addition of waterproofing admixture		5	1	4
	PC16. spread a mortar of even thickness on the surface		5	1	4
	PC17. lay brick bat on the prepared mortar ensuring proper placement and uniform gaps between bricks		10	2	8
	PC18. fill all gaps in brick bat using cement mortar		5	1	4
	PC19. finish the top surface smooth with cement mortar prepared in specified proportion along with admixtures		5	1	4
	PC20. identify and transfer required levels using appropriate tools		2.5	0.5	2
	PC21. check horizontal and vertical alignment using appropriate tools		3.5	0.5	3
	PC22. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface		4	1	3
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N0113: Build structures using random rubble masonry</b>	PC1. ensure that the correct tools and tackles are selected for use in the rubble masonry	<b>100</b>	1.25	0.25	1
	PC2. roughly estimate amount of materials required to complete a rubble masonry job work		1.25	0.25	1
	PC4. ensure proper compaction of base prior to commencement of work		1.25	0.25	1

*Assessment Criteria for Mason General*

	PC5. select the particular type of surface finish as per the site requirements		1.25	0.25	1
	PC6. prepare the sides, edges, bed of stone to ensure proper bonding of stones		1.25	0.25	1
	PC5. Check for line, level and alignment		1.25	0.25	1
	PC7. mix mortar for rubble masonry in specified ratio including dry & wet mix		1.25	0.25	1
	PC8. identify and transfer required levels using appropriate tools prior to rubble masonry work		1.25	0.25	1
	PC9. check for workability and proportion of cement mortar		5	1	4
	PC10. check the quality of stones used in random rubble masonry		3.5	0.5	3
	PC11. ensure proper soaking of stones prior to laying		1.5	0.5	1
	PC12. work with both undressed and hammer dressed stones as per the requirement of the construction site		8	2	6
	PC13. lay stones to build wall of un-course random rubble or course random rubble as per instruction		11	3	8
	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		9	3	6
	PC15. use large stones at the corners and at jambs to increase the strength as per the un-course random rubble masonry requirements	<b>100</b>	7	2	5
	PC16. ensure proper curing of rubble masonry structure		5	2	3
	PC17. perform raking of joints as specified prior to drying of bonding mortar		2.5	0.5	2
	PC18. ensure that joints are cleaned and surface is wet prior to pointing		1.5	0.5	1
	PC19. ensure lime/cement mortar for pointing is prepared as per specification		1.5	0.5	1
	PC20. fill joints with appropriate mortar to obtain specified type of pointing		5	1	4
	PC21. carry out various types of pointing works as per specification using appropriate tools and technique		7	1	6
	PC22. ensure proper curing of pointing		2.5	0.5	2
	PC23. lay and fix stones for construction of walls without use of mortar		5	1	4
	PC24. knock off all projecting corner		5	1	4

*Assessment Criteria for Mason General*

	PC25. mark and transfer required levels at a regular interval in order to maintain proper slope of finished surface in case of horizontal surface		5	1	4
	PC26. check horizontal and vertical alignment using appropriate tools		5	1	4
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N0114: Carry out IPS / Tremix flooring works</b>	PC1. inspect the work area prior to concreting, ensure levelling in case of any undulations observed on the surface prior to concreting	<b>100</b>	2.5	0.5	2
	PC2. ensure surface is prepared appropriately and report any deviation in slope and alignment in PCC		2.5	0.5	2
	PC3. report any gaps in formwork to avoid leakage		2.5	0.5	2
	PC4. report any misalignment in formwork/reinforcement and ensure proper cover for reinforcement is provided		2.5	0.5	2
	PC5. mark reference level on the wall & transfer this marking to all floor locations using appropriate tools		5	1	4
	PC6. mark flooring thickness level and provide dummy level dots at specified intervals for ensuring required slope		5	1	4
	PC7. check the grade of cement prior to use in case of manual mixing		2.5	0.5	2
	PC8. ensure fine aggregate is sieved as per grade requirement		2.5	0.5	2
	PC9. check that concrete is mixed in appropriate proportion		5	1	4
	PC10. visually assess the concrete mix for usability and workability		5	1	4
	PC11. notify superiors for detrimental quality of concrete		5	1	4
	PC12. ensure specified concrete mix is used at allocated location		5	1	4
	PC13. check that panels prepared are of specified size and type		2.5	0.5	2
	PC14. fix the glass, aluminum or brass strip in cement mortar with their tops at appropriate level and according to slope		2.5	0.5	2
	PC15. ensure panels are made as per specified size		2.5	0.5	2
	PC16. ensure concrete is poured in alternate panels/specified panels as per requirement		5	1	4
	PC17. remove excess cement slurry and any marks on the surface		2.5	0.5	2
	PC18. level the concrete surface with a straight edge and to the required finish with a wooden float / trowel		2.5	0.5	2

*Assessment Criteria for Mason General*

	PC19. spread cement punning over the IPS concrete for smooth finish surface and allow it to soak into the concrete, as per requirement		2.5	0.5	2
	PC20. provide construction joints and expansion joints as per requirement		2.5	0.5	2
	PC21. level poured concrete to the specified levels maintaining required slope		5	1	4
	PC22. ensure curing of the finished floor surface for the specified time		2.5	0.5	2
	PC23. level the surface and lay stone soling / boulder soling layer		2.5	0.5	2
	PC24. lay the floor with slope maintained in PCC work above the stone soling		2.5	0.5	2
	PC25. remove excess water from the top layer of wet concrete without removing cement of sand particles through vacuum de-watering machines		5	1	4
	PC26. ensure floater work within green concrete surface		2.5	0.5	2
	PC27. carry out Tremix flooring in specified panel on RCC floors ensuring intactness of rebar and cover		2.5	0.5	2
	PC28. cut grooves on concrete at specified intervals for construction joints		2.5	0.5	2
	PC29. provide expansion joints as per requirement		2.5	0.5	2
	PC30. carry out curing of finished concrete as per specifications		2.5	0.5	2
	PC31. ensure finished levels have required slope		2.5	0.5	2
		<b>Total</b>	100	20	80
<b>CON/N8001: Work effectively in a team to deliver desired results at the workplace</b>	PC1. pass on work related information/ requirement clearly to the team members	<b>100</b>	10	2	8
	PC2. inform co-workers and superiors about any kind of deviations from work		5	1	4
	PC3. address the problems effectively and report if required to immediate supervisor appropriately		5	1	4
	PC4. receive instructions clearly from superiors and respond effectively on same		5	1	4
	PC5. communicate to team members/subordinates for appropriate work technique and method		5	1	4
	PC6. seek clarification and advice as per requirement and applicability		10	2	8
	PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		30	6	24
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*Assessment Criteria for Mason General*

		Total	100	20	80
<b>CON/N8002: Plan and organize work to meet expected outcomes</b>	PC1. understand clearly the targets and timelines set by superiors	<b>100</b>	10	2	8
	PC2. plan activities as per schedule and sequence		10	2	8
	PC3. provide guidance to the subordinates to obtain desired outcome		10	2	8
	PC4. plan housekeeping activities prior to and post completion of work		10	2	8
	PC5. list and arrange required resources prior to commencement of work		10	2	8
	PC6. select and employ correct tools, tackles and equipment for completion of desired work		10	2	8
	PC7. complete the work with allocated resources		10	2	8
	PC8. engage allocated manpower in an appropriate manner		10	2	8
	PC9. use resources in an optimum manner to avoid any unnecessary wastage		5	1	4
	PC10. employ tools, tackles and equipment with care to avoid damage to the same		5	1	4
	PC11. organize work output, materials used, tools and tackles deployed		5	1	4
	PC12. processes adopted to be in line with the specified standards and instructions		5	1	4
	<b>Total</b>		<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N9001: Work according to personal health, safety and environment protocol at construction site</b>	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	<b>100</b>	5	1	4
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		5	1	4
	PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable		10	2	8
	PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site		5	1	4
	PC5. identify near miss , unsafe condition and unsafe act		5	1	4
	PC6. use appropriate Personal Protective Equipment (PPE) as per work requirements including: <ul style="list-style-type: none"> <li>Head Protection (Helmets)</li> <li>Ear protection</li> <li>Fall Protection</li> <li>Foot Protection</li> <li>Face and Eye Protection,</li> <li>Hand and Body Protection</li> </ul>		10	2	8



*Assessment Criteria for Mason General*

	<ul style="list-style-type: none"> <li>Respiratory Protection (if required)</li> </ul>				
	PC7. handle all required tools, tackles , materials & equipment safely		5	1	4
	PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines		5	1	4
	PC9. install and apply properly all safety equipment as instructed		15	3	12
	PC10. follow safety protocol and practices as laid down by site EHS department		15	3	12
	PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes		10	2	8
	PC12. apply ergonomic principles wherever required		10	2	8
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>