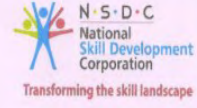




# Model Curriculum

## Mason Tiling

**SECTOR: CONSTRUCTION**  
**SUB-SECTOR: REAL ESTATE AND INFRASTRUCTURE**  
**OCCUPATION: CONSTRUCTION MASONRY**  
**REF. ID: CON/Q0104, VERSION 1.0**  
**NSQF LEVEL: 4**



# Certificate

## CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**CONSTRUCTION SECTOR SKILLS COUNCIL**

for the

### MODEL CURRICULUM

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: **'Mason Tiling.'** QP No. **'CON/Q 0104 NSQF Level 4'**

Date of Issuance: **December 31st, 2015**

Valid up to: **March 23<sup>rd</sup>, 2017**

*\* Valid up to the next review date of the Qualification Pack*

Authorised Signatory  
(Construction Skill Development Council)



## TABLE OF CONTENTS

<b>1. Curriculum</b>	<b>01</b>
<b>2. Trainer Prerequisites</b>	<b>10</b>
<b>3. Annexure: Assessment Criteria</b>	<b>11</b>



# Mason Tiling

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Mason Tiling”, in the “Construction” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Mason Tiling</b>		
<b>Qualification Pack Name &amp; Reference ID.</b>	CON/N0103		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	30-12 – 2015
<b>Pre-requisites to Training</b>	Preferably 5 <sup>th</sup> standard		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"><li>• <b>Gain insight into the Mason Tiling job role and its career progression:</b> - General introduction to job role, role of a Mason Tiling in construction industry along with the future possible career development provisions.</li><li>• <b>Lay and fix tiles both horizontally &amp; vertically on wall and floor:</b> -Selection and use of tools for measuring, marking, cutting, laying and fixing tiles as per standard procedure</li><li>• <b>Apply grouts and sealants for flooring and cladding works:</b> -Selection and use of different tools, equipment, grouts and sealants for sealing joints and finishing of flooring and cladding works.</li><li>• <b>Work effectively in a team to deliver desired results at the workplace :-</b> Organised working procedure within a team at site</li><li>• <b>Plan and organize work to meet expected outcomes :-</b> Prioritizing activities and organising resources to meet desired outcome</li><li>• <b>Work according to personal health, safety and environment protocol at construction site:</b> -Importance of Health &amp; Safety aspects &amp; measures to be followed while working</li></ul>		

This course encompasses 5 out of 5 National Occupational Standards (NOS) of “Mason Tiling” Qualification Pack issued by “Construction Skill Development Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p><b>Introduction to Mason Tiling job role</b></p> <p><b>Theory Duration</b> (hh:mm) 08:00</p> <p><b>Practical Duration</b> (hh:mm) 00:00</p> <p><b>Corresponding NOS Code</b></p>	<ul style="list-style-type: none"> <li>• Role description/ functions of the job role</li> <li>• Expected personal attributes from the job role</li> <li>• Brief description about course content, mode of learning and duration of course</li> <li>• Future possible progression and career development provisions on completion of the course</li> </ul>	<ol style="list-style-type: none"> <li>1. Classroom having seating requirement for 30 people.</li> <li>2. Toilet/Urinals (Separate for gents and Ladies)</li> <li>3. Projector</li> <li>4. Blackboard</li> </ol>
2	<p><b>Lay and fix tiles both horizontally &amp; vertically on wall and floor and fix</b></p> <p><b>Theory Duration</b> (hh:mm) 48:00</p> <p><b>Practical Duration</b> (hh:mm) 184:00</p> <p><b>Corresponding NOS Code</b> CON/N0115</p>	<p><b>Theory:-</b></p> <ul style="list-style-type: none"> <li>• Basic principles of measurement for tiling works</li> <li>• How to read and interpret drawing for tiling and cladding works</li> <li>• Different type of tools used for cutting and fixing tiles</li> <li>• Standard specification of various tools and materials used for tiling work</li> <li>• Different types of tiles, their sizes, shapes properties and their use, application for industrial, commercial and residential purpose including: <ul style="list-style-type: none"> <li>❖ Ceramic (Glazed) tiles</li> <li>❖ Clay tiles</li> <li>❖ Quarry(Unglazed) tiles</li> <li>❖ Porcelain tiles</li> <li>❖ Terrazzo tiles</li> <li>❖ Mosaic tiles</li> <li>❖ Vitrified tiles</li> <li>❖ Natural tiles</li> </ul> </li> <li>• Basic knowledge of color coding for tiles</li> <li>• How to differentiate and identify the correct color, shade of tiles, differentiate between identical shades</li> <li>• Different procedure for laying tiles on wall, floor and roof.</li> <li>• how to select and use basic tools and tackles for laying tiles such as</li> </ul>	<ol style="list-style-type: none"> <li>1. Work shop for practical assessment</li> <li>2. Toilet/Urinals (Separate for gents and Ladies)</li> <li>3. Tool box with lock and key</li> <li>4. Measuring tape/rule,</li> <li>5. Masons line</li> <li>6. Plumb bob</li> <li>7. Try Square</li> <li>8. Mortar pan</li> <li>9. Trowels</li> <li>10. Straight edge (Aluminium)</li> <li>11. Wood/rubber mallet</li> <li>12. Corner trowel</li> <li>13. Pointer trowel</li> <li>14. Line and pins</li> <li>15. Spirit level</li> <li>16. Water level</li> <li>17. Square notch trowel</li> <li>18. Hammers</li> <li>19. mallets</li> <li>20. wedges</li> <li>21. power wet saws</li> <li>22. tile scribes or hand held tile cutters</li> <li>23. rubber grout float</li> </ol>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>❖ Measuring tape/rule, hammers, mallets, wedges, power wet saws, tile scribes or hand held tile cutters.</li> <li>• various techniques / procedures for cutting different types of tiles to size and shape as per design requirements</li> <li>• basic surface preparation methods for different type of surfaces</li> <li>• basic methods and techniques of preparing bed mortar, cement slurry and cement paste as per applicability</li> <li>• different type of spacers and method of fixing and removing spacers</li> <li>• different types of tile trims/strips &amp; their uses</li> <li>• Different types of adhesives (Flexible or waterproof) for different surfaces.</li> </ul> <p><b><u>Demonstration/ Practical :-</u></b></p> <ul style="list-style-type: none"> <li>• Read and interpret working sketches provided for tiling works</li> <li>• Selection and use of hand and power tools for measuring, marking, cutting and fixing tiles</li> <li>• Selection of PPEs for general safety</li> <li>• Check the basic attributes of tiles i.e. color, shape, size, shade, batch number for tiles. Also confirm tile is not damaged.</li> <li>• carry out proper marking before cutting tiles to required shape and size</li> <li>• cut tiles as per the design /pattern specifications using appropriate tools to fit around obstacles &amp; into odd spaces &amp; corners</li> <li>• demonstrate optimum utilization ensuring minimize wastage of tiles</li> <li>• Check the base surface for compactness, slope, right angle, hacking on surface and completion of embedded services.</li> <li>• Install button marks for levelling of surface prior to tiling</li> <li>• Carry out cleaning and wetting of surface prior to fixing tiles.</li> <li>• Carry out soaking of tiles in water based on requirement/manufacturer's instructions.</li> <li>• Prepare various surface for receiving tiles.</li> <li>• Fix the center point or starting point for laying of tiles from the sketches.</li> </ul>	<ul style="list-style-type: none"> <li>24. tile trims/tile strips</li> <li>25. spacers</li> <li>26. Mixing plat form (3'x5')</li> </ul>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>• Demonstrate use of hand/ power tools for preparing bed mortar, cement slurry and cement paste as per applicability.</li> <li>• identify the laying position of tiles as per arrow marks on the tile box and maintain consistency of batch number of all tiles</li> <li>• prepare a bedding of appropriate thickness to act as base for fixing tiles</li> <li>• apply &amp; spread cement mortar, mastic, glue or other adhesives on the base of tile using appropriate tools for fixing tiles</li> <li>• install roof tiles by bedding and pointing in cement mortar or by mechanical means</li> <li>• Carry out checks for hollowness of tiled surface using wooden mallet</li> <li>• Place spacers between tiles (if required) to minimize imperfections</li> <li>• Demonstrate fixing of tile trims and strips at corner joints as per requirement</li> <li>• Carry out barricading and covering for protecting the tiled area from damage during &amp; after fixing of tiles</li> <li>• Carry out checks for line, level and alignment of the finished surface</li> </ul>	
3	<p><b>Apply grouts and sealants for flooring and cladding works</b></p> <p><b>Theory Duration</b> (hh:mm) 20:00</p> <p><b>Practical Duration</b> (hh:mm) 76:00</p> <p><b>Corresponding NOS Code</b> CON/N0116</p>	<p><b>Theory:-</b></p> <ul style="list-style-type: none"> <li>• Basic principles of measurement for tiling works</li> <li>• How to read and interpret drawing for tiling and cladding works</li> <li>• Different type of tools used for mixing and application of grouts.</li> <li>• Standard specification of various tools and materials used for applying grout into the grout lines.</li> <li>• Different types of grouts and sealants used for filling voids in tiles, marble, granite and stones including: <ul style="list-style-type: none"> <li>❖ cement based grout : Sanded / Non Sanded</li> <li>❖ epoxy based grouts</li> </ul> </li> <li>• different types of process used to prepare the respective grouts for tiles and stones</li> <li>• standard procedure applicable for the application of grouts on the vertical or the horizontal surface</li> </ul>	<ol style="list-style-type: none"> <li>1. Work shop for practical assessment</li> <li>2. Toilet/Urinals (Separate for gents and Ladies)</li> <li>3. Tool box with lock and key</li> <li>4. Measuring tape/rule,</li> <li>5. Masons line</li> <li>6. Plumb bob</li> <li>7. Try Square</li> <li>8. Mortar pan</li> <li>9. Trowels</li> <li>10. Straight edge (Aluminium)</li> <li>11. Wood/rubber mallet</li> <li>12. Corner trowel</li> <li>13. Pointer trowel</li> <li>14. Line and pins</li> <li>15. Spirit level</li> </ol>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>• different types of liquid polymeric additives (mostly blends of acrylics and latex) added to cementations grout and their effect</li> <li>• Suitability of various grouts as per manufacturer’s specification, its stability, method of mixing and curing for optimum utilization.</li> <li>• how to match grout with approved color and shades, as per design</li> <li>• method of removing old grouting compounds</li> <li>• How to maintain various tools and equipment for application of grout</li> </ul> <p><b><u>Demonstration/ Practical :-</u></b></p> <ul style="list-style-type: none"> <li>• Selection and use of hand and power tools for mixing and application of grouts</li> <li>• Selection of PPEs for general safety</li> <li>• Use of hand/ power tools for measuring, mixing grouts for filling of voids in tiles and stones</li> <li>• prepare different types of grouts as per surface requirements and manufacturer’s specifications</li> <li>• Use of hand tools for filling voids with grouts</li> <li>• press the grout into the joint using appropriate tools and technique</li> <li>• handle grout float edge appropriately &amp; prevent it from digging into grout lines</li> <li>• ensure grouting works are without any spillover outside the void / tile or stone joints and remove excess grout from the surface to avoid any grout haze on the surface</li> <li>• carry out proper curing of grout prior to application of sealant</li> <li>• polish the surface after application of grout in case of epoxy grouts for better aesthetics and smoother joints</li> <li>• add various additive to cementations grouts as a substitute for water as per specification/instruction</li> <li>• remove old grouting compound using appropriate tools is required</li> <li>• Check line’ level and alignment of tiled/stoned surface at regular intervals during grouting.</li> </ul>	<ol style="list-style-type: none"> <li>16. Water level</li> <li>17. Square notch trowel</li> <li>18. Hammers</li> <li>19. mallets</li> <li>20. wedges</li> <li>21. power wet saws</li> <li>22. tile scribes or hand held tile cutters</li> <li>23. rubber grout float</li> <li>24. tile trims/tile strips</li> <li>25. spacers</li> <li>26. Mixing plat form (3’x5’)</li> </ol>



Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>Maintain/ upkeep tools, equipment post using as per manufacturer's guidelines</li> <li>dispose of construction debris &amp; keep workplace safe and tidy for working</li> </ul>	
4	<p><b>Work effectively in a team to deliver desired results at the workplace</b></p> <p><b>Theory Duration</b> (hh:mm) 06:00</p> <p><b>Practical Duration</b> (hh:mm) 18:00</p> <p><b>Corresponding NOS Code</b> CON/N8001</p>	<p><b>Theory:-</b></p> <ul style="list-style-type: none"> <li>Method of oral and written communication skills with co-workers, trade seniors while handling and carrying out visual checks on tiles, materials, tools and equipment</li> <li>Reading and interpretation of method statements, formats, permits, protocols, checklists for works</li> <li>How to interpret scope of tiling activities, material/ tools handling by adhering to instructions or consulting with seniors</li> <li>Method of providing instruction to subordinates or reporting to seniors clearly and promptly</li> <li>Seek necessary support and complete assigned tasks within stipulated time duration</li> <li>Keep good relation and maintain well behavior with co-workers</li> </ul> <p><b>Demonstration/ Practical :-</b> The skills will be developed and practiced while carrying out following trade related activities in a predictable and familiar working condition</p> <ul style="list-style-type: none"> <li>Selection of materials, tools or devices for defined purpose under tiling works and providing instructions to subordinates for the same.</li> <li>Handling of tools, equipment and materials for tile measuring, marking ,cutting and fixing works including efficiently communicating with coworkers for desired requirement as per specification</li> <li>Carrying out tiling works while working as a team to ensure optimum utilization of material and resources</li> <li>Carrying out grouting and sealing of tiled surface utilizing the effort of coworkers.</li> <li>Undertaking visual checks to assess the quality of material and check line, level and alignments of work</li> </ul>	<ol style="list-style-type: none"> <li>Classroom having seating requirement for 30 people.</li> <li>Toilet/Urinals (Separate for gents and Ladies)</li> <li>Projector</li> <li>Blackboard</li> </ol>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>Selection and handing over of desired/ appropriate tools/ materials while assisting trade senior</li> </ul>	
5	<p><b>Plan and organize work to meet expected outcomes</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 12:00</p> <p><b>Corresponding NOS Code</b> CON/N8002</p>	<p><b>Theory:-</b></p> <ul style="list-style-type: none"> <li>To plan tile cutting and fixing activities within defined scope of work</li> <li>Basic concept of productivity, sequence of working and implementation of safety and organizational norms while working</li> <li>Upkeep, storing and stacking methods of tiles, tools, materials used for tiling works</li> <li>Requisition of resources, reporting for requirement of resources orally and in written to concerned authority - (T/P)</li> </ul> <p><b>Demonstration/ Practical :-</b> The skills will be developed and practiced while carrying out following trade related activities in a predictable and familiar working condition</p> <ul style="list-style-type: none"> <li>Selection of materials, tools or devices for defined purpose in an optimum manner</li> <li>Handling/organizing masonry tools, material, fixtures and device for tiling works</li> <li>Prioritize all works/ activities</li> <li>Planning tiles laying and fixing as per scope and schedule.</li> <li>Carrying out tiling works ensuring optimum utilization of materials.</li> <li>Optimum use of resources while performing task</li> <li>Adherence to stipulated timelines for completion of tiling activities/ tasks</li> </ul>	<ol style="list-style-type: none"> <li>Classroom having seating requirement for 30 people.</li> <li>Toilet/Urinals (Separate for gents and Ladies)</li> <li>Projector</li> <li>Blackboard</li> </ol>
6	<p><b>Work according to personal health, safety and environment protocol at construction site</b></p> <p><b>Theory Duration</b> (hh:mm) 06:00</p> <p><b>Practical Duration</b> (hh:mm) 18:00</p> <p><b>Corresponding NOS</b></p>	<p><b>Theory:-</b></p> <ul style="list-style-type: none"> <li>Types of hazards involved in construction sites</li> <li>Types of hazards involved in masonry tiling works</li> <li>Emergency safety control measures and actions to be taken under emergency situation</li> <li>Concept of :- First Aid process Use of fire extinguisher Classification of fires and fire extinguisher Safety drills Types and use of PPEs as per general safety</li> </ul>	<ol style="list-style-type: none"> <li>Safety Helmets</li> <li>Face shield</li> <li>Overalls</li> <li>Knee pads</li> <li>Safety shoes</li> <li>Safety belts</li> <li>Safety harness</li> <li>Safety Gloves</li> <li>Safety goggles</li> <li>Particle masks</li> <li>Ear Plugs</li> <li>Reflective jackets</li> <li>Fire Extinguisher</li> <li>Fire prevention kit</li> <li>First Aid box</li> </ol>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p><b>Code</b> CON/N9001</p>	<p>norms</p> <ul style="list-style-type: none"> <li>Reporting procedure to the concerned authority in emergency situations</li> <li>Standard procedure of handling, storing and stacking material, tools and accessories</li> <li>What is safe disposal of waste, type of waste and their disposal</li> <li>Type of cutting tools, their standards and area of application</li> <li>basic ergonomic principles as per applicability</li> </ul> <p><b>Demonstration/ Practical :-</b> The skills will be developed and practiced while carrying out following trade related activities in a predictable and familiar working condition.</p> <ul style="list-style-type: none"> <li>Selection of PPEs and use them appropriately as per working need of cutting and fixing tiles operations, handling, storing, stacking and shifting of tiles, tools and devices</li> <li>Selection of PPEs and use them appropriately as per working need of cutting tiles, drilling in walls, fixing tiles.</li> <li>Analysis of hazards involved in cutting and fixing tiles for flooring and cladding works or informing to seniors regarding hazardous conditions</li> <li>Identification of locations, situations/ circumstances, malpractices which can be hazardous for works</li> <li>Selection of fire extinguisher based on classification of fire, standard practice of storing &amp; stacking firefighting equipment/ materials at work locations</li> <li>Disposal of waste materials as per their nature and effects on weather</li> </ul>	<p>16. Safety tags 17. Safety Notice board</p>
	<p><b>Total Duration</b> <b>400 Hrs.</b></p> <p><b>Theory Duration</b> <b>92 Hrs.</b></p> <p><b>Practical Duration</b> <b>308 Hrs.</b></p>	<p><b>Unique Equipment Required:</b> Classroom having seating requirement for 30 people, Toilet/Urinals (Separate for gents and Ladies), Projector, Blackboard, Work shop for practical assessment, Tool box with lock and key, Measuring tape/rule, Masons line, Plumb bob, Try Square, Mortar pan, Trowels, Straight edge (Aluminium), Wood/rubber mallet, Corner trowel, Pointer trowel, Line and pins, Spirit level, Water level, Square notch trowel, Hammers, mallets, wedges, power wet saws, tile scribes or hand held tile cutters, rubber grout float, tile trims/tile strips, spacers, Mixing plat form (3'x5'), Safety Helmets, Face shield, Overalls, Knee pads, Safety shoes, Safety belts, Safety</p>	



Sr. No.	Module	Key Learning Outcomes	Equipment Required
		harness, Safety Gloves, Safety goggles, Particle masks, Ear Plugs, Reflective jackets, Fire Extinguisher, Fire prevention kit, First Aid box, Safety tags, Safety Notice board	

**Grand Total Course Duration: 400 Hours 0 Minutes**

*(This syllabus/ curriculum has been approved by Construction Skill Development Council (name of relevant Sector Skill Council or NSDC designated authority))*

## Trainer Prerequisites for Job role: "Mason Tiling" mapped to Qualification Pack: "CON/N0104"

Sr. No.	Area	Details
1	<b>Job Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack "CON/Q0104".
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field
3	<b>Minimum Educational Qualifications</b>	10 <sup>th</sup> standard or equivalent standard in literacy and numeracy
4a	<b>Domain Certification</b>	Certified for Job Role: "Mason Tiling" mapped to QP: "CON/N0104". Minimum accepted % as per respective SSC guidelines is 70%.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/Q1402". Minimum accepted % as per respective SSC guidelines is 70%.
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>i. Technical Degree holder with minimum Five years of Field &amp; Two years of teaching experience (At least one year each at workers and Engineers level) or,</li> <li>ii. In case of a Diploma Holder Ten years of field &amp; five years of teaching experience (Three years at workers level and two years at Engineers level) having Total experience to 15 yrs. or,</li> <li>iii. In case of specific to trades than should have qualified the Minimum Level- 4 and have Fifteen year of field experience and Three years of Teaching experience or,</li> <li>iv. Graduate or Intermediate should possess at least Level – 4 Certificate and have 12 years of field experience and two years of trade teaching experience or</li> </ul>



## Annexure: Assessment Criteria

<b>Assessment Criteria for Mason Tiling</b>	
<b>Job Role</b>	<b>Mason Tiling</b>
<b>Qualification Pack</b>	<b>CON/Q0104</b>
<b>Sector Skill Council</b>	<b>Construction</b>

Sr. No.	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 centre 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.

ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
<b>CON/N0115: LAY AND FIX TILES BOTH HORIZONTALLY &amp; VERTICALLY ON WALL, FLOOR AND ROOF SURFACES</b>	PC1. read and interpret working sketches prior to laying of tiles	<b>100</b>	2.5	0.5	2
	PC2. install button marks / level pads as per the tiling requirements using common reference line		1.25	0.25	1
	PC3. check the basic attributes of the base surface for: <ul style="list-style-type: none"> <li>compactness</li> <li>squareness or right angle</li> <li>slope or fall (in case of floors)</li> <li>surface plane</li> <li>hacking on surfaces (in case of RCC structure &amp; walls)</li> <li>completion of embedded surfaces (including MEP)</li> </ul>		1.25	0.25	1
	PC4. clean and wet base surfaces with water jets (except wood/vinyl )for better adhesion of tiles		1.25	0.25	1
	PC5. soak tiles in water as per manufacturer's specification, if required		1.25	0.25	1
	PC6. prepare various surfaces as per requirement for different types of tiles such as: <ul style="list-style-type: none"> <li>Masonry plastered surface</li> <li>Reinforced concrete surface</li> <li>High Precision Concrete Block</li> <li>Timber/vinyl surface</li> </ul>		2.25	0.5	2
	PC7. check for basic attributes of the tiles like color, shade, size and squareness before commencement of work		2.5	0.5	2
	PC8. check batch number of all tiles to be used in order to avoid variations in shade, color or pattern		1.25	0.25	1
	PC9. ensure that any protective layer on the tiles is removed prior to use		1.25	0.25	1
	PC10. check for any damages / cracks on the tiles prior to use		2.5	0.5	2
	PC11. ensure tiles are cleaned appropriately prior to fixing		2.5	0.5	2
	PC12. carry out proper marking before cutting tiles to required shape and size		5	1	4
	PC13. cut tiles as per the design /pattern specifications using appropriate tools to fit around obstacles & into odd spaces & corners		10	2	8
	PC14. minimize wastage of tiles		5	1	4
	PC15. specify the centre-point or starting point of the surface for tiling as per working drawings/sketches		4	1	3

ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC16. ensure the following is prepared as per specifications / requirements of tiling works: <ul style="list-style-type: none"> <li>• bed mortar (as per specification)</li> <li>• cement slurry</li> <li>• cement paste</li> <li>• adhesives</li> </ul>		4	1	3
	PC17. identify the laying position of tiles as per arrow marks on the tile box		2.5	0.5	2
	PC18. maintain consistency of batch number of all tiles		2.5	0.5	2
	PC19. prepare a bedding of appropriate thickness to act as base for fixing tiles		5	1	4
	PC20. apply & spread cement mortar, mastic, glue or other adhesives on the base of tile using appropriate tools for fixing tiles		5	1	4
	PC21. install roof tiles by bedding and pointing in cement mortar or by mechanical means		5	1	4
	PC22. check for hollowness of tiled surface using wooden mallet		3.5	0.5	3
	PC23. put spacers between tiles (if required) to minimize imperfections		3.5	0.5	3
	PC24. protect the tiled area from damage during & after fixing of tiles		1.5	0.5	1
	PC25. provide tile trims and strips at corner joints as per requirement		3.5	0.5	3
	PC26. check and provide required level and specified slope prior to and after tiling		5.25	1.25	4
	PC27. check vertical and horizontal alignment using appropriate tools during and after tiling		10	2	8
	PC28. set out 90° corners using builders square or 3-4-5 method and check right angle		5	1	4
	<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>	
<b>CON/N0116: APPLY GROUTS AND SEALANTS FOR FLOORING AND CLADDING WORKS</b>	PC1. read and interpret the working drawings / sketches prior to commencement of work		3	1	2
	PC2. ensure curing of placed stone, marble & granite tiles		1.5	0.5	1
	PC3. ensure joints of tiles are free from debris & carry out vacuum cleaning of the grout lines		2.5	0.5	2
	PC4. remove thoroughly old grouting compound with appropriate tools prior to re-grouting on old surface		3.5	0.5	3
	PC5. prepare different types of grouts as per surface requirements and manufacturer's specifications		4.5	0.5	4



				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	PC6. check grout material is of approved color and shade & as per pattern	<b>100</b>	7.5	1.5	6
	PC7. check that grout material is of approved type (sanded, un sanded, ) as per design/pattern requirements		1.5	1.5	6
	PC8. apply the grout between grout lines/joints using appropriate tool		8	4	4
	PC9. press the grout into the joint using appropriate tools and technique		8	4	4
	PC10. handle grout float edge appropriately & prevent it from digging into grout lines		5	1	4
	PC11. use appropriate amount of penetrating sealant on the stones prior to fixing as per applicability		5	1	4
	PC12. remove excess grout from the surface to avoid any grout haze on the surface		5	1	4
	PC13. check & ensure that the grout was cured prior to application of sealant		5	1	4
	PC14. polish the surface after application of grout in case of epoxy grouts for better aesthetics and smoother joints		5	1	4
	PC15. add additive to cementations grouts as a substitute for water as per specifications		5	1	4
	PC16. ensure proper care is taken for moisture sensitive and light colored natural stones to prevent stain ingress		5	1	4
	PC17. ensure proper protective layer at the corners(tile trims/strips) of tiled surfaces		5	1	4
	PC18. check and provide required level and specified slope		10	2	8
	PC19. check vertical and horizontal alignment using appropriate tools		10	2	8
			<b>Total</b>	<b>100</b>	<b>20</b>
<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



				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	PC8. work together with co-workers in a synchronized manner		30	6	24
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N8002: PLAN AND ORGANIZE WORK TO MEET EXPECTED OUTCOMES</b>	PC1. understand clearly the targets and timelines set by superiors		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		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> </ul>		10	2	8



				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	<ul style="list-style-type: none"> <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>				
	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>



**Construction Skill Development Council**  
204, Aashirwad Complex, D-1, Green Park, New Delhi - 110016