



Model Curriculum

Mason Marble, Granite and Stone

SECTOR: CONSTRUCTION
SUB-SECTOR: REAL ESTATE AND INFRASTRUCTURE
CONSTRUCTION
OCCUPATION: MASONRY
REF. ID: CON/Q0106, 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 Marble, Granite & Stone'** QP No. **'CON/Q 0106 NSQF Level 4'**

Date of Issuance: **January 8th, 2015**

Valid up to: **March 23rd, 2017**

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


Authorised Signatory
(Construction Skill Development Council)



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Mason Marble, Granite & Stone

CURRICULUM / SYLLABUS

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

Program Name	Mason Tiling		
Qualification Pack Name & Reference ID.	CON/Q0106		
Version No.	1.0	Version Update Date	08-01 – 2016
Pre-requisites to Training	Preferably 8 th standard		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none">• Gain insight into the Mason Marble, Granite and Stone job role and its career progression: -General introduction to job role, role of a Mason Marble, Granite and Stone in construction industry along with the future possible career development provisions.• Apply grouts and sealants for flooring and cladding works: -Selection and use of different tools, equipment, grouts and sealants for sealing joints and finishing of flooring and cladding works.• Cut, lay and fix natural stones for flooring works as per design pattern: - Selection and use of tools and equipments for cutting, laying and fixing of natural stones as per desired pattern.• Carry out cladding works with natural stones - Identification, selection and handling of equipments, tools and materials for cladding works and carrying out cladding works as per design specification• Work effectively in a team to deliver desired results at the workplace: - Organised working procedure within a team at site• Plan and organize work to meet expected outcomes: - Prioritizing activities and organising resources to meet desired outcome• Work according to personal health, safety and environment protocol at construction site: -Importance of Health & Safety aspects & measures to be followed while working		

This course encompasses 6 out of 6 National Occupational Standards (NOS) of “Mason Marble, Granite and Stone” Qualification Pack issued by “Construction Skill Development Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Introduction to Mason Marble, Granite and Stone job role</p> <p>Theory Duration (hh:mm) 08:00</p> <p>Practical Duration (hh:mm) 00:00</p> <p>Corresponding NOS Code</p>	<ul style="list-style-type: none"> • Role description/ functions of the job role • Expected personal attributes from the job role • Brief description about course content, mode of learning and duration of course • Future possible progression and career development provisions on completion of the course 	<ol style="list-style-type: none"> 5. Classroom having seating requirement for 30 people. 6. Toilet/Urinals (Separate for gents and Ladies) 7. Projector 8. Blackboard
2	<p>Apply grouts and sealants for flooring and cladding works</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 44:00</p> <p>Corresponding NOS Code CON/N0116</p>	<p>Theory: -</p> <ul style="list-style-type: none"> • Basic principles of measurement for tiling works • How to read and interpret drawing for tiling and cladding works • Different type of tools used for mixing and application of grouts. • Standard specification of various tools and materials used for applying grout into the grout lines. • Different types of grouts and sealants used for filling voids in tiles, marble, granite and stones including: <ul style="list-style-type: none"> ❖ cement based grout: Sanded / Non Sanded ❖ epoxy based grouts • different types of process used to prepare the respective grouts for tiles and stones • standard procedure applicable for the application of grouts on the vertical or the horizontal surface • different types of liquid polymeric additives (mostly blends of acrylics and latex) added to cementations grout and their effect • Suitability of various grouts as per manufacturer’s specification, its stability, method of mixing and curing for optimum utilization. • how to match grout with approved color and 	<ol style="list-style-type: none"> 1. Work shop for practical assessment 2. Toilet/Urinals (Separate for gents and Ladies) 3. Tool box with lock and key 4. Measuring tape/rule, 5. Masons line 6. Plumb bob 7. Try Square 8. Mortar pan 9. Trowels 10. Straight edge (Aluminium) 11. Wood/rubber mallet 12. Corner trowel 13. Pointer trowel 14. Line and pins 15. Spirit level 16. Water level 17. Square notch trowel 18. Hammers 19. mallets 20. wedges 21. power wet saws 22. Speciality rail saw 23. tile scribes or hand held tile

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>shades, as per design</p> <ul style="list-style-type: none"> method of removing old grouting compounds How to maintain various tools and equipment for application of grout <p>Demonstration/ Practical: -</p> <ul style="list-style-type: none"> Selection and use of hand and power tools for mixing and application of grouts Selection of PPEs for general safety Use of hand/ power tools for measuring, mixing grouts for filling of voids in tiles and stones prepare different types of grouts as per surface requirements and manufacturer's specifications Use of hand tools for filling voids with grouts press the grout into the joint using appropriate tools and technique handle grout float edge appropriately & prevent it from digging into grout lines 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 carry out proper curing of grout prior to application of sealant polish the surface after application of grout in case of epoxy grouts for better aesthetics and smoother joints add various additive to cementations grouts as a substitute for water as per specification/instruction remove old grouting compound using appropriate tools is required Check line' level and alignment of tiled/stoned surface at regular intervals during grouting. Maintain/ upkeep tools, equipment post using as per manufacturer's guidelines dispose of construction debris & keep workplace safe and tidy for working 	<p>cutters</p> <ol style="list-style-type: none"> rubber grout float tile trims/tile strips spacers Mixing Platform(3'x5')
3	<p>Cut, lay and fix natural stones for flooring works as per design pattern</p>	<p>Theory: -</p> <ul style="list-style-type: none"> Reading and understanding sketches of the area / surface on which stones are to be laid techniques and principles for surface 	<ol style="list-style-type: none"> Work shop for practical assessment Toilet/Urinals (Separate for

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Theory Duration (hh:mm) 72:00</p> <p>Practical Duration (hh:mm) 168:00</p> <p>Corresponding NOS Code CON/N0118</p>	<p>preparation prior to laying stones</p> <ul style="list-style-type: none"> • different types of natural stones such as: <ol style="list-style-type: none"> a) Granite b) Marble c) Limestone d) Soapstone e) Travertine f) Onyx g) Slate h) Quartzite etc. • basic properties, use & applications of different types of natural stones • standard specification of all masonry tiling tools and materials required for laying of natural stones along with their care and maintenance • how to select and use basic tools and tackles for laying stones such as: <ul style="list-style-type: none"> ❖ measuring tape/rule, hammers, mallets, wedges, power wet saws like Circular saw, Specialty rail saw • various techniques / procedures for cutting natural stones to the respective shape and size as per design requirements • methods and techniques of preparing bed mortar, cement slurry and cement paste required as per types of surface and natural stone • properties of mortar and the knowledge of mix proportions • methods and techniques of finishing & polishing stone <p>Demonstration/ Practical: -</p> <ul style="list-style-type: none"> • Selection and use of hand and power tools for cutting, laying and fixing natural stones as per design pattern. • Selection of PPEs for general safety • Use of hand/ power tools for marking, measuring and cutting of natural stones. • Check level and compactness of surface and install level pads for leveling surface if required. • carry out necessary markings on surface to provide direction for laying of natural stone 	<p>gents and Ladies)</p> <ol style="list-style-type: none"> 3. Tool box with lock and key 4. Measuring tape/rule, 5. Masons line 6. Plumb bob 7. Try Square 8. Mortar pan 9. Trowels 10. Straight edge (Aluminium) 11. Wood/rubber mallet 12. Corner trowel 13. Pointer trowel 14. Line and pins 15. Spirit level 16. Water level 17. Square notch trowel 18. Hammers 19. mallets 20. wedges 21. power wet saws 22. Speciality rail saw 23. tile scribes or hand held tile cutters 24. rubber grout float 25. tile trims/tile strips 26. spacers 27. Mixing plat form (3'x5')

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Visual checking to be carried out for stone to check if it is free from any damage /cracks and surface is free from dust, dirt and grease. mark the pattern for cutting ensuring adequate markings for electrical and plumbing requirements cut and grind the natural stone to desired shape and size as per design pattern Prepare bed mortar, cement slurry and cement paste for setting the natural stone in place as per specification for prepare the sides, edges & bed of stone for proper bonding. Fix natural stones for flooring works as per desired design pattern/specifications. check hollowness of stone after fixing pour and spread grout and polish the stone as per applicability using sand and water, pumice stone and machine 	
4	<p>Carry out cladding works with natural stones</p> <p>Theory Duration (hh:mm) 68:00</p> <p>Practical Duration (hh:mm) 156:00</p> <p>Corresponding NOS Code CON/N0119</p>	<p>Theory: -</p> <ul style="list-style-type: none"> various drawing for cladding works work method statement for cladding works various types of natural stones used for flooring and cladding works basic properties, use & applications of different types of natural stones process of handling, shifting and placing of tiles and natural stones procedure to be followed while cladding with natural stones standard specification of all tools and materials required for cladding works care and maintenance required for the respective tools and equipments how to select and use basic tools and tackles for stone laying including: measuring tape/rule, rubber hammer, mallets, wedges, power wet saws like Circular saw, Specialty rail saw use of anchoring tools for cladding works tools and techniques used for cutting natural stones to the specified shape and size difference between wet and dry cladding 	<ol style="list-style-type: none"> Work shop for practical assessment Toilet/Urinals (Separate for gents and Ladies) 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

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> • Fixing anchors and fasteners for dry and wet cladding works • Process for dry and wet cladding works • Different angles and fasteners used in cladding work. • preparation of mortar for wet cladding works <p><u>Demonstration/ Practical: -</u></p> <ul style="list-style-type: none"> • Visual checking of stones for defects/cracks and existing surface for dust/dirt and imperfections in levels • check surface for completion of embedded surfaces and make necessary provisions for the cutouts and fixtures • Use of hand and power tools for cutting, drilling works for proper fixing of stones • Selection and use general safety gears for cladding works including safety gear for working at heights • Proper placing and storing of stones prior to fixing • carry out necessary markings on surface to provide direction for laying of natural stones • drill holes to secure anchors on walls for dry and wet cladding • fix anchors/angles, fasteners and other accessories in the wall for maintaining proper alignment in horizontal and vertical direction • select and use suitable anchoring tools and ensuring adequate anchorage of steel anchors as per standard practices • place stones as per standard method for dry cladding works and secure it by suitable method • fix angles and fasteners for wet cladding works and place stones using specified mortar for bonding • carry out grouting and pointing between stones • maintain grooves in stone slabs as per drawing/pattern and fill the same with appropriate joint sealant • remove excess mortar from joints, edges using appropriate tools 	<ol style="list-style-type: none"> 21. power wet saws 22. Speciality rail saw 23. tile scribes or hand held tile cutters 24. rubber grout float 25. tile trims/tile strips 26. spacers 27. Mixing platform (3'x5') 28. Bracket and expansion bolt 29. Stainless steel anchor and pin 30. Angles 31. fasteners 32. Drilling machine 33. Screwdrivers

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> maintain specified gap between back wall and stone lining to provide for adequate drainage in dry cladding works check line, level & alignment of cladding works as per requirement 	
5	<p>Work effectively in a team to deliver desired results at the workplace</p> <p>Theory Duration (hh:mm) 08:00</p> <p>Practical Duration (hh:mm) 16:00</p> <p>Corresponding NOS Code CON/N8001</p>	<p>Theory: -</p> <ul style="list-style-type: none"> Method of oral and written communication skills with co-workers, trade seniors while handling and carrying out visual checks on materials, tools and equipments Reading and interpretation of method statements, formats, permits, protocols, checklists for works How to interpret scope of flooring and cladding activities, material/ tools handling by adhering to instructions or consulting with seniors Method of providing instruction to subordinates or reporting to seniors clearly and promptly Seek necessary support and complete assigned tasks within stipulated time duration Keep good relation and maintain well behavior with co-workers <p>Demonstration/ Practical: -</p> <p>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"> Selection of materials, tools or devices for defined purpose under flooring and cladding works and providing instructions to subordinates for the same. Handling of tools, equipments and materials for stone cutting and fixing works including efficiently communicating with coworkers for desired requirement as per specification Carrying out cladding works while working as a team to ensure optimum utilization of material and resources Carrying out grouting and sealing of tiled surface utilizing the effort of coworkers. Undertaking visual checks to assess the quality of material and check line, level and alignments of work 	<ol style="list-style-type: none"> Classroom having seating requirement for 30 people. Toilet/Urinals (Separate for gents and Ladies) Projector Blackboard

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Selection and handing over of desired/ appropriate tools/ materials while assisting trade senior 	
6	<p>Plan and organize work to meet expected outcomes</p> <p>Theory Duration (hh:mm) 06:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code CON/N8002</p>	<p>Theory: -</p> <ul style="list-style-type: none"> To plan stone cutting and fixing activities within defined scope of work Basic concept of productivity, sequence of working and implementation of safety and organizational norms while working Upkeep, storing and stacking methods of tools, materials used for domain specific works Requisition of resources, reporting for requirement of resources orally and in written to concerned authority. <p>Demonstration/ Practical: -</p> <p>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"> Selection of materials, tools or devices for defined purpose in an optimum manner Handling/organizing masonry tools, material, fixtures and device for stone cladding and flooring Prioritize all works/ activities Planning stone laying and fixing as per scope and schedule. Carrying out cladding of natural stones ensuring optimum utilization of material and resources. Optimum use of resources while performing task Adherence to stipulated timelines for completion of flooring and cladding activities/ tasks 	<ol style="list-style-type: none"> Classroom having seating requirement for 30 people. Toilet/Urinals (Separate for gents and Ladies) Projector Blackboard
7	<p>Work according to personal health, safety and environment protocol at construction site</p> <p>Theory Duration (hh:mm) 08:00</p>	<p>Theory: -</p> <ul style="list-style-type: none"> Types of hazards involved in construction sites Types of hazards involved in masonry tiling works Emergency safety control measures and actions to be taken under emergency situation 	<ol style="list-style-type: none"> Safety Helmets Face shield Overalls Knee pads Safety shoes Safety belts Safety harness Safety Gloves Safety goggles Particle masks

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Practical Duration (hh:mm) 16:00</p> <p>Corresponding NOS Code CON/N9001</p>	<ul style="list-style-type: none"> • Concept of: - <ol style="list-style-type: none"> 6. First Aid process 7. Use of fire extinguisher 8. Classification of fires and fire extinguisher 9. Safety drills 10. Types and use of PPEs as per general safety norms • Reporting procedure to the concerned authority in emergency situations • Standard procedure of handling, storing and stacking material, tools and accessories • What is safe disposal of waste, type of waste and their disposal • Type of cutting tools, their standards and area of application • basic ergonomic principles as per applicability <p>Demonstration/ Practical: - 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"> • Selection of PPEs and use them appropriately as per working need of cutting and fixing stones operations, handling, storing, stacking and shifting of stones, tools and devices • Selection of PPEs and use them appropriately as per working need of cutting stones, drilling in walls, fixing fixtures for cladding works • Analysis of hazards involved in cutting and fixing stone for flooring and cladding works/ fixing fixtures for cladding works or informing to seniors regarding hazardous conditions • Identification of locations, situations/ circumstances, malpractices which can be hazardous for works • Selection of fire extinguisher based on classification of fire, standard practice of storing & stacking firefighting equipments/ materials at work locations • Disposal of waste materials as per their nature and effects on weather 	<ol style="list-style-type: none"> 11. Ear Plugs 12. Reflective jackets 13. Fire Extinguisher 14. Fire prevention kit 15. First Aid box 16. Safety tags 17. Safety Notice board

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Total Duration</p> <p>Theory Duration 190 Hrs.</p> <p>Practical Duration 410Hrs.</p>	<p>Unique Equipment Required:</p> <p>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, speciality rail saw, tile scribes or hand held tile cutters, rubber grout float, tile trims/tile strips, spacers, Mixing plat form (3'x5'), Bracket and expansion bolt, Stainless steel anchor and pin, Angles, fasteners, Drilling machine, Screwdrivers, Safety Helmets, Face shield, Overalls, Knee pads, Safety shoes, Safety belts, Safety harness, Safety Gloves, Safety goggles, Particle masks, Ear Plugs, Reflective jackets, Fire Extinguisher, Fire prevention kit, First Aid box, Safety tags, Safety Notice board</p>	

Grand Total Course Duration: 600 Hours 00 Minutes

(This syllabus/ curriculum has been approved by Construction Skill Development Council of India.)



Annexure: Trainer Prerequisites for Job role: "Mason Marble, Granite and Stone" mapped to Qualification Pack: "CON/N0106"

Sr. No.	Area	Details
1	Job Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack " <u>CON/Q0106</u> ".
2	Personal Attributes	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	Minimum Educational Qualifications	10 th standard or equivalent standard in literacy and numeracy
4a	Domain Certification	Certified for Job Role: "Mason Marble, Granite and Stone" mapped to QP: " <u>CON/Q0106</u> ". Minimum accepted % as per respective SSC guidelines is 70%.
4b	Platform Certification	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	Experience	<ul style="list-style-type: none"> i. Technical Degree holder with minimum Five years of Field & Two years of (At least one year each at workers and Engineers level) or, ii. In case of a Diploma Holder Ten years of field & five years of teaching experience (Three years at workers' level and two years at Engineers level) having Total experience to 15 yrs. or, 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, iv. Graduate or Intermediate should possess at least Level – 4 Certificate and have 12years of field experience and two years of trade teaching experience or



Annexure: Assessment Criteria

Assessment Criteria for Mason Marble, Granite and Stone	
Job Role	Mason Marble, Granite and Stone
Qualification Pack	CON/Q0106
Sector Skill Council	Construction

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
CON/N0116: Apply grouts and sealants for flooring and cladding works	PC1. read and interpret the working drawings / sketches prior to commencement of work	100	3	1	2
	PC2. ensure curing of placed stone, marble & granite tiles		3	1	2
	PC3. ensure joints of tiles are free from debris & carry out vacuum cleaning of the grout lines		3	1	2
	PC4. remove thoroughly old grouting compound with appropriate tools prior to re-grouting on old surface		3	1	2
	PC5. prepare different types of grouts as per surface requirements and manufacturer's specifications		3	1	2
	PC6. check grout material is of approved color and shade & as per pattern		7.5	2.5	5
	PC7. check that grout material is of approved type (sanded, un sanded,) as per design/pattern requirements		7.5	2.5	5
	PC8. apply the grout between grout lines/joints using appropriate tool		8	2	6
	PC9. press the grout into the joint using appropriate tools and technique		5	1	4
	PC10. handle grout float edge appropriately & prevent it from digging into grout lines		5	2	3
	PC11. use appropriate amount of penetrating sealant on the stones prior to fixing as per applicability		4	1	3
	PC12. remove excess grout from the surface to avoid any grout haze on the surface		3	1	2
	PC13. check & ensure that the grout was cured prior to application of sealant		5	2	3

ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC14. polish the surface after application of grout in case of epoxy grouts for better aesthetics and smoother joints		7	2	5
	PC15. add additive to cementations grouts as a substitute for water as per specifications		6	2	4
	PC16. ensure proper care is taken for moisture sensitive and light colored natural stones to prevent strain ingress		4	1	3
	PC17. ensure proper protective layer at the corners(tile trims/strips) of tiled surfaces		4	1	3
	PC18. check and provide required level and specified slope		10.5	2.5	8
	PC19. check vertical and horizontal alignment using appropriate tools		8.5	2.5	6
		Total	100	30	70
CON/N0118: Cut, lay and fix natural stones for flooring works as per design pattern	PC1. read and interpret work drawings or sketches	100	3	1	2
	PC2. ensure surface is free from any debris or obstructions		2	1	1
	PC3. check level and compactness of surface using appropriate tools		3	1	2
	PC4. install button marks or level pads as per requirements		5	2	3
	PC5. measure dimensions of surface and ensure its adequacy for laying of natural stones		4	1	3
	PC6. check base surface for squareness, slope & surface plane		2	1	1
	PC7. carry out necessary markings on surface to provide direction for laying of natural stone		4	1	3
	PC8. check surface for completion of embedded surfaces and make necessary provisions for the same		2	1	1

ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC9. check basic attributes of rooms and floor		4	1	3
	PC10. ensure the stone is free from any damage /cracks		3	1	2
	PC11. clean the surface of the natural stones of any grease, dust, clay and any other		3	1	2
	PC12. mark the pattern for cutting ensuring adequate markings for electrical and plumbing requirements		3	1	2
	PC13. cut and grind the natural stone to desired shape and size as per design pattern		5	1	4
	PC14. minimize wastage of tiles		3	1	2
	PC15. mix a suitable mortar using cement, sand and water in required ratio to act as bonding agent		5	1	4
	PC16. prepare bed mortar, cement slurry and cement paste for setting the natural stone in place as per specification		5	2	3
	PC17. determine alignment and lay floor patterns or foundations using appropriate tools		4	1	3
	PC18. apply cement paste / adhesives on the base of the stone using appropriate tools		5	1	4
	PC19. set the natural stone in place as per the design or pattern		6	2	4
	PC20. check for hollowness of set stones using wooden mallet		4	1	3
	PC21. fill any depressions / gaps with suitable patching material		4	1	3
	PC22. pour and spread mortar or grout on natural stones as per applicability		7	2	5
	PC23. finish the surface by rubbing and grinding using appropriate tools		6	2	4

				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	PC24. polish the natural stone by using sand and water, pumice stone and machine as per applicability		8	2	6
		Total	100	30	70
CON/N0119: Carry out cladding works with natural stones	PC1. ensure natural stones is stored in a safe and accessible manner when not in use		10	3	7
	PC2. ensure stone slabs are placed in vertical position to prevent contact with earth surface		10	3	7
	PC3. read/interpret work drawings/sketches for cladding works		3	1	2
	PC4. install button marks or level pads prior to commencement of cladding works		3	1	2
	PC5. ensure base surface is free from any debris or obstructions		3	1	2
	PC6. check existing wall surface for cracks & undulations		2	1	1
	PC7. measure the dimensions of surface to ensure its adequacy for laying of natural stones		2	1	1
	PC8. check surface for squareness, slope, surface plane, & compactness	100	3	1	2
	PC9. carry out necessary markings on surface to provide direction for laying of natural stones		3	1	2
	PC10. check surface for completion of embedded surfaces and make necessary provisions for the same		3	1	2
	PC11. apply cement mortar as per specifications and requirements		3	1	2
	PC12. drill holes to secure anchors on walls for dry and wet cladding		10	2	8
	PC13. fix anchors/angles, fasteners and other accessories in the wall for maintaining proper alignment in horizontal and vertical direction		4	2	2

ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC14. select and use suitable anchoring tools and ensure adequate anchorage of steel anchors as per standard practices		2	1	1
	PC15. place stones as per standard method for dry cladding works and secure the same by suitable method		2	1	1
	PC16. fix angles and fasteners for wet cladding works and place stones as per standard method using specified mortar for bonding		4	2	2
	PC17. carry out grouting and pointing between stones		4	2	2
	PC18. maintain grooves in stone slabs as per drawing/pattern and fill the same with appropriate joint sealant		9	1	8
	PC19. remove excess mortar from joints, edges using appropriate tools		5	1	4
	PC20. maintain specified gap between back wall and stone lining to provide for adequate drainage in dry cladding works		10	2	8
	PC21. check line, level & alignment of cladding works as per requirement		5	1	4
		Total	100	30	70
CON/N8001: Work effectively in a team to deliver desired results at the workplace	PC1. pass on work related information/ requirement clearly to the team members	100	7	2	5
	PC2. inform co-workers and superiors about any kind of deviations from work		7	2	5
	PC3. address the problems effectively and report if required to immediate supervisor appropriately		10	3	7
	PC4. receive instructions clearly from superiors and respond effectively on same		7	2	5
	PC5. communicate to team members/subordinates for appropriate work technique and method		10	3	7

ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC6. seek clarification and advice as per requirement and applicability		7	2	5
	PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		27	8	19
	PC8. work together with co-workers in a synchronized manner		27	8	19
		Total	100	30	70
CON/N8002: Plan and organize work to meet expected outcomes	PC1. understand clearly the targets and timelines set by superiors		7	2	5
	PC2. plan activities as per schedule and sequence		7	2	5
	PC3. provide guidance to the subordinates to obtain desired outcome		10	3	7
	PC4. plan housekeeping activities prior to and post completion of work		7	2	5
	PC5. list and arrange required resources prior to commencement of work		10	3	7
	PC6. select and employ correct tools, tackles and equipment for completion of desired work		10	3	7
	PC7. complete the work with allocated resources		10	3	7
	PC8. engage allocated manpower in an appropriate manner		10	3	7
	PC9. use resources in an optimum manner to avoid any unnecessary wastage		10	3	7
	PC10. employ tools, tackles and equipment with care to avoid damage to the same		7	2	5
	PC11. organize work output, materials used, tools and tackles deployed		7	2	5

				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	PC12. processes adopted to be in line with the specified standards and instructions		7	2	5
		Total	100	30	70
CON/N9001: Work according to personal health, safety and environment protocol at construction site	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority		7	2	5
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		7	2	5
	PC3. follow recommended safe practices in handling construction materials including chemical and hazardous material whenever applicable		10	3	7
	PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site		7	2	5
	PC5. identify near miss, unsafe condition and unsafe act		7	2	5
	PC6. use appropriate Personal Protective Equipment (PPE) as per work requirements including: <ul style="list-style-type: none"> Head Protection (Helmets) Ear protection Fall Protection Foot Protection Face and Eye Protection, Hand and Body Protection Respiratory Protection (if required) 	100	10	3	7
	PC7. handle all required tools, tackles, materials & equipment safely		7	2	5
	PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines		7	2	5
	PC9. install and apply properly all safety equipment as instructed		13	4	9
	PC10. follow safety protocol and practices as laid down by site EHS department		13	4	9
	PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or		7	2	5



				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	hazardous wastes				
	PC12. apply ergonomic principles wherever required		7	2	5
		Total	100	30	70



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