

**QUALIFICATION FILE**

**Wall and Floor Tiling (WorldSkills)**

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☒ Upskilling ☐ Dual/Flexi Qualification ☒ For ToT ☒ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 4.5

Submitted By:

Construction Skill Development Council of India

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## Section 1: Basic Details

1.	Qualification Name	Wall and Floor Tiling (WorldSkills)																						
2.	Sector/s	Construction																						
3.	Type of Qualification: <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	NQR Code & version of existing/previous qualification: (change to previous, once approved)			Qualification Name of existing/previous version: NA																			
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																						
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-4.5-CO-01783-2024-V1-CSDCI, v 1.0			6. NCrf/NSQF Level: 4.5																			
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																						
8.	Brief Description of the Qualification	A tiler generally works on commercial and residential projects. There is a direct relationship between the nature and quality of the product required and the payment made by the customer. Therefore, the tiler has a continuing responsibility to work professionally in order to meet the requirements of the customer and thus maintain and grow the business. Tiling is closely associated with other parts of the construction industry, and with the many products that support it, normally for commercial purposes.																						
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. <b>Entry Qualification &amp; Relevant Experience:</b> The Competitors must not be older than 22 years in the year of the Competition.																						
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	17			11. Common Cost Norm Category (I/II/III) (wherever applicable): I																			
12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																						
13.	Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>150</td> <td>360</td> <td></td> <td></td> <td>510</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> (Refer Blended Learning Annexure for details)					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	150	360			510	Online					
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)																			
Classroom (offline)	150	360			510																			
Online																								

14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/7112.0200
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	NA
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	NA
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No URLs of similar Qualifications:
18.	Is the Job Role Amenable to Persons with Disability	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", specify applicable type of Disability:
19.	How Participation of Women will be Encouraged	Participation of women in skill competitions is essential to empower them. Women today form a significant part of the workforce, however, the recognition of their participation in it has always been vastly underestimated. One way to improve their meaningful participation is improving their skill capacity. Women today possess a variety of advantages in both technical and soft skills. For example, social skills, analytical skills, managerial skills, mechanical skills, and more. Skill initiatives must be taken to help with the growth of women in the workforce, our economy and our society. By following the mentioned strategies, we can ensure the participation of females in Skill Competitions: Equal access to Education, Awareness and Outreach, Role Models and Mentorship, Flexible Learning Opportunities, Financial Support (if required), Safe and Inclusive Spaces, Employer Partnerships, Networking Opportunities, Recognition and Rewards.
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (CON/N4101)
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Colleges <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
22.	Name and Contact Details of Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: Neha Sharma Dave Email: <a href="mailto:neha@csdcindia.org">neha@csdcindia.org</a> Contact No.: 0124-4513915-18 Ext-22 Website: <a href="http://www.csdcindia.org">www.csdcindia.org</a>
23.	Final Approval Date by NSQC: 06/02/2024	24. Validity Duration: 2 years
		25. Next Review Date: 06/02/2026

## Section 2: Module Summary

## NOS/s of Qualifications

(In exceptional cases these could be described as components)

## Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

Th.-Theory Pr.-Practical OJT-On the Job Man.-Mandatory Training Rec.-Recommended Proj.-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Work Organization, Management and Communication	CON/N4101	Non-Core	4.5	2	20	40			60	30	70			100	10
2.	Problem Solving, Innovation and Creativity	CON/N4102	Non-Core	4.5	1	10	20			30	30	70			100	5
3.	Interpretation of Drawings	CON/N4103	Core	4.5	1	10	20			30	30	70			100	5
4.	Setting out and Measurement	CON/N4104	Core	4.5	2	20	40			60	30	70			100	5
5.	Construction of Test Project (Wall and Floor Tiling)	CON/N4106	Core	4.5	8	70	170			240	30	70			100	60
6.	Quality Check and Handover	CON/N4105	Non-Core	4.5	3	20	70			90	30	70			100	15
Duration (in Hours) / Total Marks					17	150	360			510	180	420			600	100

## Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

**Minimum Pass Percentage – Aggregate at qualification level: 70%** (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

**Minimum Pass Percentage – NOS/Module-wise: \_\_\_\_%** (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

## Section 3: Training Related

1.	<b>Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)</b>	B. Tech in Relevant Trade (2 Year) Diploma in Relevant Trade (3 Years) ITI in Relevant Trade (6 Years) General BA/BSc. / EX-Army/ 12th in Relevant Trade (6 Years)
2.	<b>Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)</b>	Graduate in Relevant Trade (8 years) Diploma in Relevant Trade (10 years)

		ITI in Relevant Trade (13 Years)
3.	<b>Tools and Equipment Required for Training</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If "Yes", details to be provided in Annexure)
4.	<b>In Case of Revised Qualification, Details of Any Upskilling Required for Trainer</b>	NA

## Section 4: Assessment Related

1.	<b>Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	B. Tech in Relevant Trade (2 years) Diploma in Relevant Trade (5 years) ITI in Relevant Trade (7 years)
2.	<b>Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	B. Tech in Relevant Trade (2 years) Diploma in Relevant Trade (5 years) ITI in Relevant Trade (7 years)
3.	<b>Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	Diploma in Relevant Trade (10 years) Graduate in Relevant Trade (8 years) ITI in Relevant Trade (13 Years) General BA/B.Sc/Ex-Army/12 <sup>th</sup> in Relevant Trade (13 Years)
4.	<b>Assessment Mode (Specify the assessment mode)</b>	Offline
5.	<b>Tools and Equipment Required for Assessment</b>	<input checked="" type="checkbox"/> Same as for training <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (details to be provided in Annexure-if it is different for Assessment)

## Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	<b>Latest Skill Gap Study (not older than 2 years) (Yes/No):</b> NA
2.	<b>Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):</b> NA
3.	<b>Government /Industry initiatives/ requirement (Yes/No):</b> NA
4.	<b>Number of Industry validation provided:</b> NA
5.	<b>Estimated nos. of persons to be trained and employed:</b> NA
6.	<b>Evidence of Concurrence/Consultation with Line Ministry/State Departments:</b> NA If "No", why:

## Section 6: Annexure &amp; Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	<b>Annexure:</b> NCrf/NSQF level justification based on NCrf level/NSQF descriptors (Mandatory)	Attached
2.	<b>Annexure:</b> List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Attached
3.	<b>Annexure:</b> Detailed Assessment Criteria (Mandatory)	Attached
4.	<b>Annexure:</b> Assessment Strategy (Mandatory)	Attached
5.	<b>Annexure:</b> Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	NA
6.	<b>Annexure:</b> Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	NA
7.	<b>Annexure:</b> Acronym and Glossary (Optional)	Attached
8.	<b>Supporting Document:</b> Model Curriculum (Mandatory – Public view)	Attached
9.	<b>Supporting Document:</b> Career Progression (Mandatory - Public view)	NA
10.	<b>Supporting Document:</b> Occupational Map (Mandatory)	NA
11.	<b>Supporting Document:</b> Assessment SOP (Mandatory)	Attached
12.	<b>Any other document you wish to submit:</b>	Technical Description for <b>Wall and Floor Tiling</b>

## Annexure 1: Evidence of Level

NCrf/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrf/NSQF level descriptor	NCrf/NSQF Level
<b>Professional Theoretical Knowledge/Process</b>	<ul style="list-style-type: none"> <li>Process of laying and fixing tiles both horizontally and vertically on wall and floor</li> <li>Process of applying grouts and sealants for flooring and cladding</li> <li>Process of working effectively in a team to deliver desired results at the workplace.</li> <li>Process of planning and organizing work to meet expected outcomes</li> <li>Process of working according to personal health, safety and environment protocols at the construction site.</li> </ul>	<p>As detailed, the entire process followed by a Tiler is to lay and fix tiles both horizontally and vertically on wall and floor, and apply grouts and sealants for flooring and cladding.</p> <p>As the work is routine and is repeated multiple times, the work becomes predictable.</p> <p>As the Tiler is required to perform the task as per the required codes and standards following the method statement available for the task, they have a clear work situation.</p>	4.5

<b>Professional and Technical Skills/ Expertise/ Professional Knowledge</b>	<ul style="list-style-type: none"> <li>• Understand the standard practices for tiling work</li> <li>• Know the different types of tiles, their sizes, shapes, properties, and application for industrial, commercial and residential purpose</li> <li>• Know the different procedures/processes for laying tile on floor, wall &amp; roof</li> <li>• Know how to select and use basic tools and tackles for laying tiles</li> <li>• Know various techniques / procedures for cutting different types of tiles to size and shape as per design requirements</li> <li>• Know the use of electronic devices like laser level, machine, laser distance meter like Bosch GLL3 professional, Hilti laser PD-E, Bosch GTL 3 tile laser</li> <li>• Understand the standard practices for grouting works</li> <li>• Understand the standard specification of all grouting tools and materials</li> <li>• Know the different types of process used to prepare the respective grouts for tiles and stones</li> <li>• Know how to match grout with approved color and shades, as per design</li> </ul>	<p>The knowledge required for a Tiler is factual, as it is specific and limited to the knowledge of standard practices for tiling work; simple sketches for tiling works; different types of tiles, their sizes, shapes, properties, and application for industrial, commercial and residential purpose; procedures/ processes for laying tile on floor, wall &amp; roof; basic tools and tackles for laying tiles; techniques / procedures for cutting different types of tiles to size and shape as per design requirements; electronic devices like laser level, machine, laser distance meter like Bosch GLL3 professional, Hilti laser PD-E, Bosch GTL 3 tile laser; standard practices for grouting works; standard specification of all grouting tools and materials; different types of process used to prepare the respective grouts for tiles and stones; matching grout with approved color and shades, as per design.</p> <p>Therefore, their knowledge is applicable to their field of work only.</p>	4.5
<b>Employment Readiness &amp; Entrepreneurship Skills &amp; Mind-set/ Professional Skill</b>	<ul style="list-style-type: none"> <li>• Check the basic attributes of the base surface such as compactness, squareness or right- angle slope or fall</li> <li>• Check for basic attributes of the tiles like color, shade, size and squareness before commencement of work</li> <li>• Check batch number of all tiles to be used in order to avoid variations in shade, color or pattern</li> <li>• Check for any damages / cracks on the tiles prior to use</li> <li>• Cut tiles as per the design /pattern specifications using appropriate tools</li> <li>• Identify the laying position of tiles as per arrow marks on the tile box</li> <li>• Check for hollowness of tiled surface using wooden mallet</li> <li>• Check the slope, vertical and horizontal alignment using appropriate tools during and after tiling</li> <li>• Check that grout material is of approved colour and type</li> <li>• Check and ensure that the grout was cured prior to application of sealant</li> </ul>	<p>As indicated the skill set is required to check the basic attributes of the base surface such as compactness, squareness or right- angle slope or fall; check for basic attributes of the tiles like color, shade, size and squareness before commencement of work; check batch number of all tiles to be used in order to avoid variations in shade, color or pattern; check for any damages / cracks on the tiles prior to use; cut tiles as per the design /pattern specifications using appropriate tools; identify the laying position of tiles as per arrow marks on the tile box; check for hollowness of tiled surface using wooden mallet; check slope, vertical and horizontal alignment using appropriate tools during and after tiling; check that grout material is of approved colour and type; check and ensure that the grout was cured prior to application of sealant.</p>	4.5
<b>Broad Learning Outcomes/Core Skill</b>	<ul style="list-style-type: none"> <li>• Carry out the process of laying and fixing tiles both horizontally and vertically on wall and floor</li> <li>• Carry out the process of applying grouts and sealants for flooring and cladding works.</li> </ul>	<p>The Tiler is expected to carry out fabrication and fixing of reinforcement bars for complex structures and process of installing mechanical couplers for reinforcement works.</p>	4.5



<b>Responsibility</b>	<p>The individual in this job role will be responsible for the below-mentioned activities:</p> <ul style="list-style-type: none"> <li>● Carry out preparatory work prior to fixing of tiles Check that the tiles are as per the specifications</li> <li>● Measure &amp; cut tiles as per the design, shape and size requirements. Lay and fix both natural and processed tiles on wall &amp; floors</li> <li>● Check for line, level and alignment</li> <li>● Carry out preparatory work for grouting of tile, stone, marble, and granite works</li> <li>● Apply grout and sealant to seal the void or gap between the tiles, stones, marble, and granite</li> <li>● Check for line, level &amp; alignment</li> <li>● Interact and communicate in an effective manner</li> <li>● Support co-workers to execute the project requirements</li> <li>● Practice inclusion</li> <li>● Plan and prepare for work</li> <li>● Organise required resources as per work plan</li> <li>● Complete work as per the plan</li> <li>● Follow safety norms as defined by the organization</li> <li>● Adopt healthy &amp; safe work practices</li> <li>● Implement good housekeeping and environment protection process and activities</li> <li>● Follow infection control guidelines as per applicability</li> </ul>	<p>A Tiler is responsible for identifying, cutting, grinding, shaping, laying, fixing and finishing the tiles on floors and walls using the appropriate tools and equipment, as per the specified standards, patterns, and within the dimensional accuracy.</p>	<p>4.5</p>
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## Annexure 2: Tools and Equipment (Lab Set-Up / Competition Area)

List of Tools and Equipment

Batch Size: 30 Candidates

SI N	Tool / Equipment Name	Specification	Quantity
1	Mortar bin (60 L) Black plastic	Numbers	1 pcs per Competitor
2	Mixing bucket (26 L)	Numbers	1 pcs per Competitor
3	Hand saw for concrete blocks cellular of 700 mm	Numbers	2 pcs per Skill
4	Hard hand brush for washing tools	Numbers	1 pcs per Competitor
5	Working stand	Numbers	1 pcs per Competitor
6	Water Butt 200 l	Numbers	8 pcs per Skill
7	hoppup	Numbers	4 pcs per Skill
8	Construction wheelbarrow (unicycle) 100 Litre	Numbers	8 pcs per Skill
9	Hard broom plastic	Numbers	5 pcs per Skill
10	Fine coconut broom 29 cm	Numbers	1 pcs per Competitor
11	Square shovel 25 x 29	Numbers	1 pcs per Competitor
12	Antivibe Steel Claw Hammer (16oz) 0,700 Kg	Numbers	3 pcs per Skill
13	Paintbrush 80 mm	Numbers	1 pcs per Competitor
14	180 mm roller and handle	Numbers	1 pcs per Competitor
15	Trowel triangular 16 cm	Numbers	1 pcs per Competitor
16	Trowel Italian round 20 cm	Numbers	1 pcs per Competitor
17	Bricklayer twine in 2,5 mm	Numbers	2 pcs per Skill
18	Electric mixers	Numbers	12 pcs per Skill
19	Pallet truck for at least 2500 kg	Numbers	1 pcs per Skill
20	Extention cord (25 m)	Numbers	3 pcs per Skill
21	Pump clamp	Numbers	12 pcs per Skill
22	Type 196-2 LED Level (61 cm)	Numbers	4 pcs per Skill
23	LAX 600 G	Numbers	3 pcs per Skill
24	Spirit level (180 cm)	Numbers	25 pcs per Skill
25	Chalk line SG Tracing line	Numbers	2 pcs per Skill
26	Spirit level 100 cm	Numbers	25 pcs per Skill
27	Cordless Drill Driver 18 V - skill 12	Numbers	1 pcs per Competitor
28	Mini fine tip pen steadler 0.1 mm	Numbers	2 pcs per Competitor
29	Silicone guns (large)	Numbers	1 pcs per Competitor
30	P799BY marking/distancing adhesive - black/yellow - roll of 48 mm x 50 m	Numbers	25 pcs per Skill
31	Water hose	Numbers	2 pcs per Skill
32	Vacuum cleaner dust skill 12	Numbers	1 pcs per Competitor
33	Diamond Ring Saw 1000 w	Numbers	2 pcs per Skill
34	Multifunctional hacksaw	Numbers	1 pcs per Competitor
35	BM Measuring Tape (5 m, 19 mm)	Numbers	25 pcs per Skill
36	TECH 196 DL, 183 cm Electronic spirit level	Numbers	4 pcs per Skill
37	LBM 1000 Long Measuring Tape (50m) skill 12	Numbers	1 pcs per Skill
38	Folding Rulers (2m) Stabila 1407 Worldskills Lyon 2024	Numbers	50 pcs per Skill

39	Electronic spirit level 40 cm	Numbers	4 pcs per Skill
40	Trash bag 60 liters pack 100 pieces	Numbers	1 pcs per Skill
41	Forklift truck	Numbers	1 pcs per Skill
42	Stapler (20 mm)	Numbers	3 pcs per Skill
43	Spare Blades for Hacksaw ( )	Numbers	1 pcs per Competitor
44	Transport skater	Numbers	4 pcs per Skill
45	Mitre box	Numbers	1 pcs per Competitor
46	Latex gloves	Numbers	1 per Competitor
47	Tape measure 3 m x 19 mm	Numbers	1 per Competitor
48	Spirit level skill 12	Numbers	25 per Skill
49	Rectangular work table 115 x 52 x 80 cm for skill 12	Numbers	1 per Competitor
50	Stainless steel spatula 100 mm	Numbers	1 per Competitor
51	Tile cutter T X 710 Max	Numbers	1 per Competitor
52	Equipement outils	Numbers	1 per Competitor
53	White rubber mallet 500 gr	Numbers	1 per Competitor
54	Tile cleaning bucket 18 liters	Numbers	1 per Competitor
55	water Saw for tiling	Numbers	1 per Competitor
56	Open ladders. Next item. 2000 x 1000 x 500 load per shelf 129 kg	Numbers	2 per Skill
57	Open ladders. Starting element 2000 x 1000 x 500 Load per shelf 129 kg	Numbers	1 per Skill
58	Open ladders. Starting element 2000 x 1000 x 388 Load per shelf 109 kg	Numbers	1 per Competitor
59	Construction projector on tripod 750 W	Numbers	1 per Competitor
60	Alligator saw to cut cellular block	Numbers	1 per Competitor
61	Cat's tongue trowel 16 cm	Numbers	1 per Competitor
62	Roll of paper for wiping	Numbers	1 per Competitor
63	Handsaw de 450 mm	Numbers	1 per Competitor
64	Cutter + 5 blades	Numbers	1 per Competitor
65	Stainless steel ruler 100 cm	Numbers	1 per Competitor
66	Stainless steel ruler 50 cm	Numbers	1 per Competitor
67	Abrasive grater for cellular concrete 380 x 160	Numbers	8 per Skill
68	Black rubber mallet Ø 60	Numbers	4 per Skill
69	Toothed plue trowel 15 cm for cellular concrete	Numbers	4 per Skill
70	Aluminium straight edge 50 x 15 x 2000 mm	Numbers	48 per Skill
71	Carpenter's hammer 35 mm 690 gr	Numbers	1 per Competitor
72	Aluminium square 60 x 100 cm	Numbers	1 per Competitor
73	Bevel square L 20 cm	Numbers	1 per Competitor
74	Carpenter's square L 30 cm	Numbers	1 per Competitor
75	Synthetic brush	Numbers	1 per Competitor
76	Metal dust shovel de 370 mm	Numbers	1 per Competitor
77	Handle for fine coconut broom 60 cm	Numbers	5 per Skill
78	Fine coconut broom 60 cm	Numbers	5 per Skill
79	Handle for plastic broom	Numbers	1 per Competitor
80	Handle for fine coconut broom 29 cm	Numbers	1 per Competitor
81	Blue powder for training line 400 gr	Numbers	1 per Skill

82	Tiler pliers (separator) 250 mm	Numbers	1 per Competitor
83	Black plastic bucket 11 L	Numbers	2 per Competitor
84	Professional toolbox	Numbers	1 per Competitor
85	Knee protection cushion	Numbers	1 per Competitor
86	Tape measure Rubiflex 5 m	Numbers	1 per Competitor
87	Russian pliers 220 mm	Numbers	1 per Competitor
88	Cold chisel 250 x 23 x 13	Numbers	1 per Competitor
89	Formworker's hammer	Numbers	1 per Competitor
90	Construction pencils	Numbers	2 per Competitor
91	straight edge support kit 30 cm	Numbers	1 per Competitor
92	Pointed mortar float	Numbers	1 per Competitor
93	Saw for cellular concrete	Numbers	1 per Competitor
94	Pliers (parrot) for tiles	Numbers	1 per Competitor
95	Tile pliers	Numbers	1 per Competitor
96	Dirty water recycling machine	Numbers	2 per Skill
97	Aluminium straight edge 50 x 15 x 1250 mm	Numbers	48 pcs per Skill
98	Aluminium straight edge 50 x 15 x 1500 mm	Numbers	24 pcs per Skill
99	Aluminium straight edge 50 x 15 x 1500 mm	Numbers	24 pcs per Skill
100	WD 40 Specialist PTFE dry lubricant Dual-position spray 400 ml	Numbers	10 pcs per Skill
101	Multifunctional product Dual-position spray 500 ml	Numbers	10 pcs per Skill
102	Ultra porcelain disk 180	Numbers	1 per Competitor
103	End cap	Numbers	4 per Skill
104	Manual diamond pads 200	Numbers	1 per Competitor
105	Epoxy float	Numbers	1 per Competitor
106	Electronic spirit level 81 cm	Numbers	4 per Skill
107	Electronic spirit level 100 cm	Numbers	4 per Skill
108	Electronic spirit level 122 cm	Numbers	4 per Skill
109	Electronic spirit level 61 cm	Numbers	4 per Skill
110	Angle finder 45 cm	Numbers	4 per Skill
111	Suction cup with vacuum pump	Numbers	2 per Competitor
112	Protective stretch film	Numbers	3 per Skill
113	Size type and quantity to be reviewed	Numbers	1 pcs per Skill
114	tile spacers 2mm	Numbers	2 kits per Competitor
115	Lightweight concrete block (600 x 250 x 100 mm)	Numbers	8 pcs per Competitor
116	Gray slope form mortar in 25 kg 2 kg / M <sup>2</sup> / mm	Numbers	8 per Competitor
117	primary attachment prima classic v010	Numbers	1 per Competitor
118	Classic fine joint mortar 1 à 7 mm in 5 kg Color to be determined depending on subject	Numbers	2 per Competitor
119	Gray adhesive mortar in 25 kg Collimix Premium 2 CT ET/EG	Numbers	3 per Skill
120	Cleaning sponge	Numbers	4 per Competitor
121	Grooved sponge float	Numbers	1 per Competitor
122	Soft rubber float	Numbers	1 per Competitor
123	Tile trowel trapezoid	Numbers	1 per Competitor
124	Tile spatula knife 60 mm	Numbers	1 per Competitor

125	Tile trowel	Numbers	1 per Competitor
126	Tile trowels set	Numbers	1 per Competitor
127	Manual diamond pads 120	Numbers	1 per Competitor
128	Manual diamond pads 60	Numbers	1 per Competitor
129	Thickness wedges 1 to 5 mm	Numbers	1 per Competitor
130	Spacers 3 mm	Numbers	1 per Competitor
131	Wood panel MDF 16 mm 2800 x 2070 skill 12	Numbers	12 per Skill
132	Placo screws TTPC de 45 mm	Numbers	2 per Skill
133	Placo screws TTPC de 35 mm	Numbers	2 per Skill
134	Placo screws TTPC de 25 mm	Numbers	2 per Skill
135	Polyane roll type 150	Numbers	1 per Skill
136	Cellular concrete blocks 62,5 x 25 x 15 cm	Numbers	48 pcs per Competitor
137	Cellular concrete adhesive Préocol	Numbers	20 pcs per Skill
138	colliseal GREY	Numbers	1 per Competitor
139	colliseal white	Numbers	1 per Competitor
140	LED construction spotlight - 1800 lumens/20 W - H. 0.26 m	Numbers	1 per Competitor
141	Color Laser Printer + Scan (A3/A4)	Numbers	1 pcs per Skill
142	Mousepad	Numbers	1 pcs per Skill
143	Network filter with, at least, 5 sockets	Numbers	3 pcs per Skill
144	Acoustic system with 2 wireless microphones	Numbers	1 pcs per Skill
145	CIS Laptop - Type 1	Numbers	3 pcs per Skill
146	Screen and projector	Numbers	1 pcs per Skill
147	Color Laser Printer + Scan (A3/A4)	Numbers	1 pcs per Skill
148	TV Stand to mount	Numbers	1 pcs per Skill
149	Acoustic system with 2 wireless microphones	Numbers	1 pcs per Skill
150	Color Laser Printer + Scan (A3/A4)	Numbers	1 pcs per Skill
151	Cable HDMI (10 m)	Numbers	2 pcs per Skill
152	Screen and projector	Numbers	1 pcs per Skill
153	TV Stand to mount	Numbers	1 pcs per Skill
154	CIS Laptop - Type 1	Numbers	1 pcs per Skill
155	Network filter with, at least, 5 sockets	Numbers	3 pcs per Skill
156	Mousepad	Numbers	1 pcs per Skill
157	Network filter with, at least, 5 sockets	Numbers	10 pcs per Skill
158	Tablet for marking	Numbers	10 pcs per Skill
159	AutoCAD	Numbers	1 pcs per Skill
160	Windows OS (11)	Numbers	4 per Skill
161	Windows OS (11)	Numbers	4 per Skill
162	Chair -Type1 (without wheels)	Numbers	3 pcs per Skill
163	Locker	Numbers	1 pcs per Skill
164	Locker	Numbers	1 pcs per Skill
165	Trash bin (10 L)	Numbers	1 pcs per Skill
166	Clock (on the wall)	Numbers	5 pcs per Skill
167	Chair -Type1 (without wheels)	Numbers	60 pcs per Skill

168	Trash bin (10 L)	Numbers	1 pcs per Skill
169	Locker	Numbers	2 pcs per Skill
170	Chair -Type1 (without wheels)	Numbers	30 pcs per Skill
171	Trash bin (10 L)	Numbers	2 pcs per Skill
172	Chair -Type1 (without wheels)	Numbers	3 pcs per Skill
173	Clock (on the wall)	Numbers	2 pcs per Skill
174	Scoop for cleaning	Numbers	2 pcs per Skill
175	Trash bin ( 40L ) - Skill 41	Numbers	4 pcs per Skill
176	Brush for cleaning	Numbers	2 pcs per Skill
177	Chair -Type1 (without wheels)	Numbers	10 pcs per Skill
178	Water cooler	Numbers	2 pcs per Skill
179	Refrigerator	Numbers	2 pcs per Skill
180	Shelving	Numbers	2 pcs per Skill
181	Fire extinguisher (Powder)	Numbers	1 pcs per Skill
182	Fire extinguisher (Powder)	Numbers	4 pcs per Skill
183	HSE First Aid Kit	Numbers	1 pcs per Skill
184	HSE First Aid Kit	Numbers	1 pcs per Skill
185	Protective Glasses (plastic, transparent) - Skill 41	Numbers	1 pcs per Competitor
186	Earplugs	Numbers	1 pcs per Skill
187	Hand Sanitizer	Numbers	1 pcs per Competitor
188	Dust mask	Numbers	3 pcs per Competitor
189	Heavy Duty Gloves (Rigger gloves)	Numbers	2 pcs per Competitor
190	Eye Wash Bottle	Numbers	2 pcs per Skill
191	Anti-cut gloves (size M)	Numbers	1 pcs per Competitor
192	HSE First Aid Kit	Numbers	1 pcs per Skill
193	Anti-cut gloves (size L)	Numbers	1 pcs per Competitor
194	Dust mask	Numbers	5 pcs per Skill
195	Anti-cut gloves (size S)	Numbers	1 pcs per Competitor
196	Notebook (A5)	Numbers	10 pcs per Skill
197	Pen (Black)	Numbers	25 pcs per Skill
198	Pen (Blue)	Numbers	25 pcs per Skill
199	Pen (Red)	Numbers	25 pcs per Skill
200	Pencil (HB) with rubber in one end	Numbers	25 pcs per Skill
201	Set of markers	Numbers	2 pcs per Skill
202	Rubber/eraser	Numbers	5 pcs per Skill
203	Hole Punch (2 hole)	Numbers	1 pcs per Skill
204	File for A4 paper format	Numbers	5 pcs per Skill
205	Highlighter Set	Numbers	2 pcs per Skill
206	Paper clips (100 pieces)	Numbers	2 pcs per Skill
207	Stapler (20 mm)	Numbers	2 pcs per Skill
208	Staples pin	Numbers	2 pcs per Skill
209	Staple remover	Numbers	2 pcs per Skill
210	Scientific Calculator - Stock WS FRANCE	Numbers	2 pcs per Skill

211	Scissors SKILL 12	Numbers	2 pcs per Skill
212	Steel ruler (500 mm) skill 12	Numbers	5 pcs per Skill
213	Rubber Bands	Numbers	1 pcs per Skill
214	Pencil Sharpener	Numbers	2 pcs per Skill
215	Notes (3x3 inch, four colors)	Numbers	10 pcs per Skill
216	Paper for print A4 Self-adhesive	Numbers	1 pcs per Skill
217	Set of markers	Numbers	2 pcs per Skill
218	Flip Chart	Numbers	1 pcs per Skill
219	Foldback Clips	Numbers	2 pcs per Skill
220	Paper for print A4	Numbers	1 pcs per Skill
221	Paper for print A3	Numbers	1 pcs per Skill
222	Paper for print A4 Self-adhesive	Numbers	1 pcs per Skill
223	Blu Tack	Numbers	2 pcs per Skill
224	Wet Wipes boxes	Numbers	2 pcs per Skill
225	Box cutters	Numbers	2 pcs per Skill

NOTE: For regular updates on tool and equipment list (Infrastructure List) for Skill Competition for “**Wall and Floor Tiling**”, kindly refer to the WorldSkills Competition Website: <https://il.worldskills.org/#/events/579/lists/1140/public>

#### Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Training Kit (Trainer Guide, Presentations)
2. Whiteboard/ Blackboard
3. Marker
4. Projector
5. Working Model

#### Annexure 3: Industry Validations Summary

Provide the summary information of all the industry validations in the table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
NA	NA	NA	NA	NA	NA	NA	NA

Annexure 4: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualificati on Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

Content availability for previous versions of qualifications:

☐ Participant Handbook ☐ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available:



## Annexure 5: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>Work Organization, Management and Communication</b>	Explain health and safety legislation, obligations, and documentation	30	70		
	check and ensure the availability of appropriate and usable Personal Protective Equipment (PPE) at the workplace				
	use the appropriate PPE according to the nature of work and ensure other personnel also do the same				
	follow and promote the appropriate measures to ensure hygiene in the workplace, e.g.regular cleaning and sanitization				
	follow the applicable emergency procedures and ensure the personnel also do the same				
	Learn precautions for the safe use of power and cordless tools				
	Apply standards and laws relating to security, safety, and hygiene in plastering and drywall systems				
	establish methods for optimal and economically organized construction site. regarding construction plan and equipment, organization and procedures, material management, staffing and timelines				
	determine the correct calculations and estimates by using principles and methods				
	store plasterboards and related products safely and securely				
	be proactive in own continuous professional development in order to keep abreast of methods of working in the construction industry and changing technologies, for example acoustics, sustainability and environmental impact				
	Work effectively as part of teams				
	Work effectively with other trades				
	Establish and maintain high quality standards and working processes				

	identify problems promptly and manage their resolution				
	select, use and store all materials safely				
	plan work areas to maximize efficiency and maintain the discipline of regular tidying				
	principles and methods for determine the correct calculations and estimates				
	understand technical terminology and symbols				
	visualize and translate customer wishes making recommendations which meet/improve their design and budgetary requirements where qualified to do so				
	Produce a cost and time estimate for customers				
	introduce related trades to support customer requirements				
	work effectively in a team to facilitate efficiency/productivity/quality and cost control				
	recognize the needs of architects and related trades				
	explain the importance of swiftly resolving misunderstandings and conflicting demands				
	<b>Total Marks</b>	<b>30</b>	<b>70</b>		
<b>Problem Solving, Innovation and Creativity</b>	Check work regularly, particularly for accuracy/standard to minimize problems at a later stage	30	70		
	Recognize and understand problems swiftly and follow a self-managed process for resolving				
	Challenge incorrect information to prevent problems				
	Develop creative solutions to challenges when working on restoration projects				
	Recognize opportunities to contribute ideas to improve the product and overall level of customer satisfaction				
	Demonstrate a willingness to try new methods and embrace change				
	<b>Total Marks</b>	<b>30</b>	<b>70</b>		
<b>Interpretation of Drawings</b>	Prepare site measurement drawings	30	70		
	Accurately interpret all plans, elevations, sections and enlarged details				
	Produce basic outline drawings (hand and CAD) including elevations, plans, and sections to full size				
	produce accurate complex drawings on wood to make figure on the wall/floor				
	Identify drawing errors or items that require clarification				
	Determine and check quantities of materials required				
	Calculate a cost and price for the work				
	Identify horizontal and vertical key dimensions and all angles				
	Identify curved work and mortar joint finishes				
	Interpret all project features and their required construction methods				
	Establish any features that need special equipment or templates and source these				
	Recognize specified bonding patterns and obey bonding rules during construction				
	Provide advice and guidance to other professionals such as architects and quantity surveyors				
	Keep essential notes on each installation process				
	Explain complex specialist and technical information about installations to clients and other professionals				
	Apply mathematic geometry principles to the calculation of angles, areas, perimeters, curves, arcs, volumes, ratios, etc.				

	Prepare the materials requirements, taking into account increased requirements due to compression, wastage, breakage, etc.	30	70		
	Calculate formwork surfaces and materials requirements				
	Calculate formwork surfaces and materials requirements for face concrete formwork				
	Interpret, analyse, and work with construction plans (e.g. design plans, formwork plans, reinforcement plans, detail drawings, etc.) and material and parts lists				
	<b>Total Marks</b>				
<b>Setting out and Measurement</b>	Check measurements of the wall/floor conform to the drawing specifications	30	70		
	Produce setting out for templates				
	Visualize and think through projects, identifying potential challenges early and taking the necessary preventative action				
	Set out the locations, starting points and lines of projects according to plans and specifications				
	Set out highly technical designs including brick-on-end, brick-on edge, raked/inclined, curved projecting, recessing brickwork, archways, corbelling, decorative bonding, and battered walling				
	Accurately interpret the dimensions from drawings and ensure the design is set out within a given tolerance				
	Check all horizontal and vertical angles				
	Accurately interpret dimensions from drawings and ensure designs are set out within a given tolerances				
	Produce any templates/building aids that may be helpful when constructing				
	Set out datum points of reference for projects				
	Carry out setting out work using the necessary surveying equipment (pocket rule, tape measure, distance meter, set square, level, etc.)				
	Measure predetermined structures, joints, and materials for the subsequent face concrete surfaces (anchor holes, shuttering frames, board inserts, distribution and alignment of formwork boards, etc.)				
	Create horizontal levels and measure heights using spirit levels, water level gauges, and optical devices				
	<b>Total Marks</b>				
<b>Construction of Test Project (Wall and Floor Tiling)</b>	Remove old tiles, grout, cement, or adhesive	30	70		
	Fill all holes/cracks and clean surfaces				
	Provide drainage: interpret information with reference to falls and position of outlets from location, assembly and component drawings; install channels, outlets and gullies and finish surface and joints				
	Prepare materials to specification requirements including sand and cement mixes, beads and trims				
	Gauge and mix renders: sand and cement mixes in the correct proportions				
	Apply render to internal and external backgrounds to provide the specified finish, to include three-coat work and key for tiling				
	Minimize damage to surrounding surfaces by applying protective material and using barriers				
	Install tiles to flat, inclined, and curved surfaces				

	Cut and shape tiles needed for edges, corners, and to fit around fittings and pipes ensuring no chipping/sanding	30	70		
	Apply correct adhesive evenly to tiles, avoiding excess				
	Attach tiles to surfaces and floors to form patterns and motifs, ensuring no lipping				
	Accurately space tiles, checking level, plumb and square to ensure aligned and levelled				
	Prepare and apply seal and grout to joints ensuring symmetrical and equal				
	Remove excess seal and grout, clean and polish to provide a good finish which meets the specification/customer requirements				
	Finish edge and corners with appropriate finishing methods and strips				
	<b>Total Marks</b>				
Quality Check and Handover	Inspect equipment, structures, and/or material to identify the nature and causes of errors, defects, or problems	30	70		
	Think critically by using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems				
	Identify actual and potential problems				
	Analyse information and evaluate options to choose and use the best solution				
	Evaluate solutions and optimize results				
	The need for all work to be presented to meet customer and related trades needs and expectations				
	The importance of joint finishing in line with the specifications provided				
	The different techniques of applying different joint finishes				
	understand the process of marking and assessment criteria of respective trade				
	respond to the queries on the queries being raised by them				
	Make and follow through decision				
	Apply appropriate techniques according to buildings' history and fabrication, whilst maintaining their integrity for both internal and external surfaces				
	Leave work areas in a suitable condition for inspection and subsequent work				
	Report positive and negative variances in work processes and results, together with their implications				
	Organize any waste material so that it can be disposed of or recycled efficiently				
	<b>Total Marks</b>				
<b>Grand Total</b>		<b>180</b>	<b>420</b>		

## Annexure 6: Assessment Strategy

## Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

- 0: performance below industry standard
- 1: performance meets industry standard
- 2: performance meets and, in specific respects, exceeds industry standard
- 3: performance wholly exceeds industry standard and is judged as excellent
- Three Experts will judge each Aspect, normally simultaneously, and record their scores. A fourth Expert coordinates and supervises the scoring, and checks their validity. They also act as a judge when required to prevent compatriot marking.
- WorldSkills is committed to continuous improvement including reviewing past limitations and building on good practice. The following skill assessment strategy and procedures for this skill competition take this into account and explain how the marking process will be managed
- Measurement (tolerance): • 0 mm = 10 points; • 1 mm = 9 points; 2 mm = 8 points; 3 mm = 7 points; 4 mm = 6 points; • 5 mm = 5 points; • More than 5 mm = 1 point.
- A – Overall appearance • Cleaning of tiles and tile edges; • Regular joints for width and surface; • Cleaning the area around the project.
- B – Cutting • No chipping on tile edges; • Regular size joints; • Sanded edges of tiles.
- C – Level • Put the level on the tiles and adjust until it is level. Place the marking wedge at one end of the straight edge until it reads level. (Note this is not to be done in the middle.)
- D – Plumb • Put the level on the tiles and adjust until it is plumb. Place the marking wedge at one end of the straight edge until it reads plumb. (Note this is not to be done in the middle.)
- E – Square • The square must be used in conjunction with 2 screeds/aluminium straight edges. Place the marking wedge in the area deemed to be out of square.
- F – Surface alignment • Using an aluminium straight edge or level over a given area check alignment using the gauge over the length of the service.
- G – Measurements
- H – Fully completed to drawing • Missing tiles; • Wrong tiles • Project not completed to drawing; • Tile bedding not finished to edge of tiles. The Experts who attend the Competition are divided into marking groups according to their WorldSkills experience, language, and culture to deal with each section of the marking criteria

For more updates, kindly visit: <https://worldskills.org>

## Annexure 7: Acronym and Glossary

## Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
CSDCI	Construction Skill Development Council of India

<b>ISCO</b>	International Standard Classification of Occupations
<b>NCO</b>	National Classification of Occupations
<b>NCrF</b>	National Credit Framework
<b>NOS</b>	National Occupational Standard(s)
<b>NQR</b>	National Qualification Register
<b>NSQF</b>	National Skills Qualifications Framework
<b>WSC</b>	World Skills Competition

## Glossary

<b>Term</b>	<b>Description</b>
<b>National Occupational Standards (NOS)</b>	NOS defines the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
<b>Qualification</b>	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
<b>Qualification File</b>	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
<b>Sector</b>	A grouping of professional activities on the basis of their main economic function, product, service or technology.
<b>Short Term Training</b>	Short-term skilling means any vocational training program undertaken for a year and above. <a href="https://ncvet.gov.in/sites/default/files/NCVET.pdf">https://ncvet.gov.in/sites/default/files/NCVET.pdf</a>
<b>Skill Competition</b>	WorldSkills International, by a resolution of the Competitions Committee and in accordance with the Constitution, the Standing Orders, and the Competition Rules, has adopted the following minimum requirements for this skill for the WorldSkills Competition