



Skill India
कौशल भारत - कुशल भारत



Sample Test Project

District / Zonal Skill Competitions

Skill- Architectural Stonemasonry

Category: Construction and Building Technology

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Section - A

A. Preface

Skill Explained:

An architectural stonemason generally works in the commercial sector, cutting to shape all-natural stones (granite, limestone, sandstone, and marble) by hand. In this sector, machines are also used, and may be a component of the stonemason's role. However, operation of these machines is not the task of a stonemason.

There is a direct relationship between the nature and quality of the product required and the payment made by the customer. Therefore, the stonemason has a continuing responsibility to work professionally in order to meet the requirements of the customer and thus maintain and grow the business. As part of this, deep knowledge of geology, materials, processes, and building methods, new and old, are crucial.

Whether the architectural stonemason is working alone or in a team the individual takes on a high level of personal responsibility and autonomy. The ability to work with other trades is also increasingly important.

Mistakes are irreversible and very costly. Every part in the process, from working safely through to exceptional precision, accuracy and attention to detail, is important.

Restoring, conserving, renovating and maintaining cultural and architectural heritage is highly valued for structures that are locally, regionally, nationally and internationally significant. For the talented architectural stonemason there are many commercial and international opportunities; however, these carry with them the need to understand and work with diverse cultures and trends. The diversity of skills associated with architectural stonemasonry is therefore like to expand.

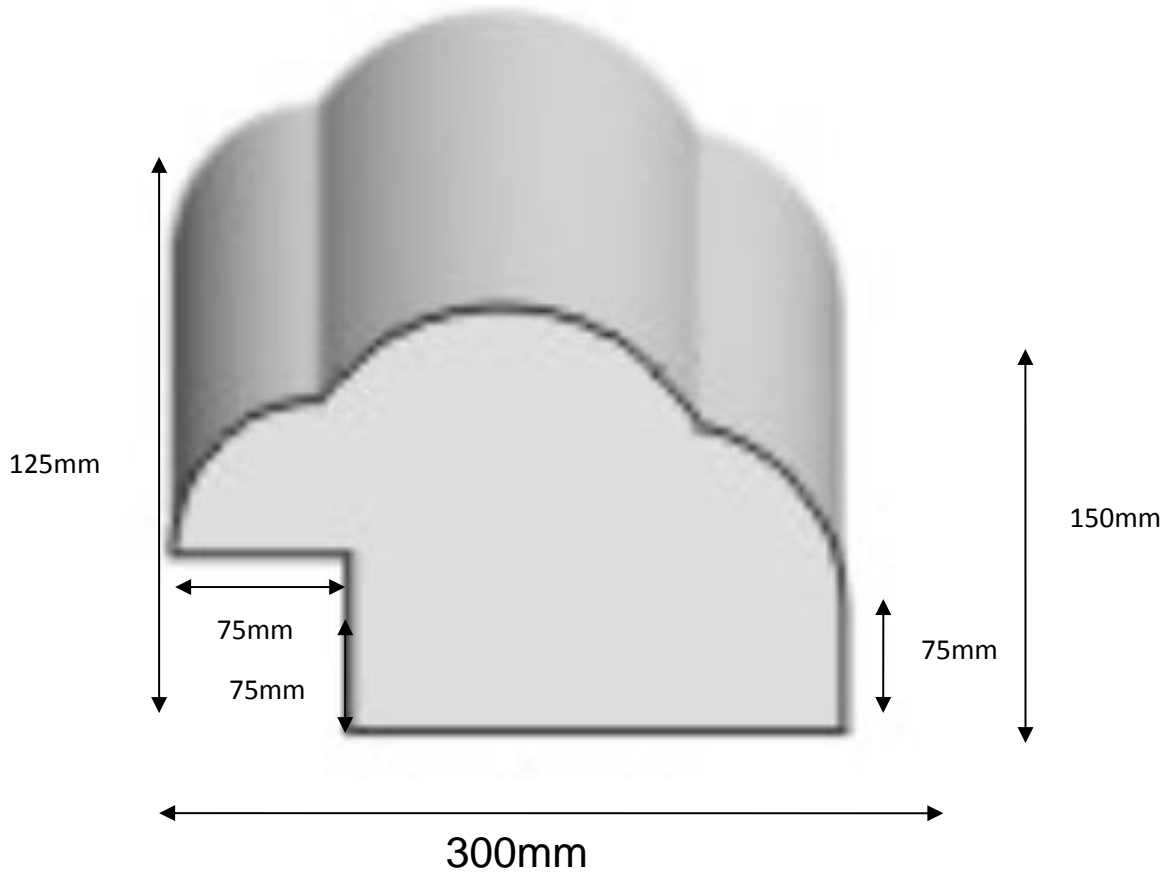
Eligibility Criteria (for IndiaSkills 2018 and WorldSkills 2019):

Competitors born on or after 01 Jan 1997 are eligible to attend the Competition.

Total Duration: 5 Hrs

Section - B

B. Test Project



Section – C

C. Marking Scheme

The Assessment is done by awarding points by adopting two methods, Measurement and Judgments

- Measurement – One which is measurable
- Judgments - Based on Industry expectations

Measurement is used to assess accuracy, precision, and other performance which can be measured in unambiguous way. Mark is awarded in full for a dimension within tolerance and zero when it is out of tolerance.

Judgment is used to assess the quality of performance, about which there may be small differences of opinion.

THE USE OF MEASUREMENT AND JUDGEMENT

Decisions regarding the selection of criteria and assessment methods will be made during the design of the competition through the Marking Scheme and Test Project. 80% marks may be for Measurement and 20% for Judgment

ASSESSMENT AND MARKING USING MEASUREMENT & JUDGMENT

MARKING SYSTEM

Section	Criterion	Marks		
		Judgment	Measurement	Total
A	General impression	10		10
B	Corners, cuts measurement (MM)		10	10
C	Measurement of external – Length, Width, Height (MM)		45	45
D	Flat surface		15	15
E	Profiles, profile surface, curved surface		10	10
F	Cutting, Finishing & Carving	10		10
Total		20	80	100

C. Measurement of external – Length, Width, Height (MM)

15 Marks each for each dimension (L, W, H)

Within tolerance < 3 mm Full points (100%)

Within tolerance < 5 mm Half Points (50%)

Within tolerance > 5 mm No points

Out of tolerance No points

ASSESSMENT AND MARKING USING JUDGEMENT

Judgment marking

The marking will be on judgment on the subsections layout and craftsmanship.

Judgement uses a scale of 0-10.

To apply the scale with rigour and consistency, judgement must be conducted using:

Benchmarks (criteria) for detailed guidance for each Aspect the 0-10 scale to indicate:

Finish of Stone Object – 0 Marks

Finish of Stone Object with Average Finish – 5 marks

Finish of Stone Object with Good Finish – 10 marks

Section - D

D. Infrastructure List

Materials, equipment and tools supplied by Competitors in their toolbox

Hand tools

- Grinders
- Cutters
- Mallets (various sizes)
- Boasters, drafting chisels straight and round, punch, point, claw tool,
- Dummy/lettering/carving hammer
- Carving chisels (various sizes)
- Lettering chisels (various sizes)
- Hammers, squares, straight edges, depth gauges, combination squares
- Steel rules (various sizes)

Setting out equipment

- Set squares (various sizes)
- Compass (various sizes)
- Assortment of dividers (various sizes)
- Drawing equipment
- Wire wool/emery paper
- Scissors
- Tin snips
- Scriber
- Flat & round files
- Knife for cutting plastic sheet
- Pencils
- Pens
- Drafting tape

Supplementary

- Dusting brush
- Timber wedges
- Rubbing stones (only allowed on arises)
- Plastic sheet for supplementary templets (not marked)
- Paper for drawing
- Carbon paper
- Clamps

Materials, equipment and tools supplied by Expert

Measuring equipment for checking tolerances - 1mm and 2mm shims

Materials & equipment prohibited in the skill area

The use of the following machines, fixtures and materials is NOT allowed:

Handsaws, Rasps and file the use of any kind of adhesive for attaching or re-attaching any material is not allowed.

Section – E

E. Instructions for candidates

1. **Time:** Drawing Reading – Either previous day or 1 hour before competition
Working Time – 5 Hours. Cleaning of Area – ½ hour after working time
2. **Drawing:** Read the drawing carefully. Understand Dimensions, Projections and Cutting of bricks.
3. **Stone Type :** Sandstone / Marble
4. **Stone Sizes :** 600 * 300 * 200 mm
5. **Details: As per Drawing** Refer Sectional and detail drawing.
6. **Health and Safety:** All participants must follow health and safety measures, suggested to wear the issued protection equipment such as ear plugs, knee pads, goggles and safety shoes.
7. **Planning:** Before starting to the work kindly submit the planning stating activity and time for that.

Section – F

F. Health, Safety, and Environment

1. All accredited participants and supporting volunteers will abide by rules and regulations with regards to Health, Safety, and Environment of the Competition venue.
2. All participants, technicians and supporting staff will wear the required protective Personnel clothing.
3. All participants will assume liability for all risks of injury and damage to property, loss of property, which might be associated with or result from participation in the event. The organizers will not be liable for any damage, however in case of Injury the competitor will immediately inform the immediate organizer for medical attention.