



Skill India
कौशल भारत - कुशल भारत



India**skills**



N · S · D · C
National
Skill Development
Corporation

Transforming the skill landscape

Sample Test Project

District / Zonal Skill Competitions

Skill- Bricklaying

Category: Construction and Building Technology

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Section - A

A. Preface

Skill Explained:

A bricklayer works on commercial and residential projects. The main responsibility of a bricklayer is to construct masonry components accurately and neatly according to the plan which often contains technical details. The bricklayer will interpret drawings, set out and measure, construct and finish to a high standard. Successful bricklayer requires endurance, concentration, an eye for details with continuing responsibility to work professionally in order to meet the requirements of the customer.

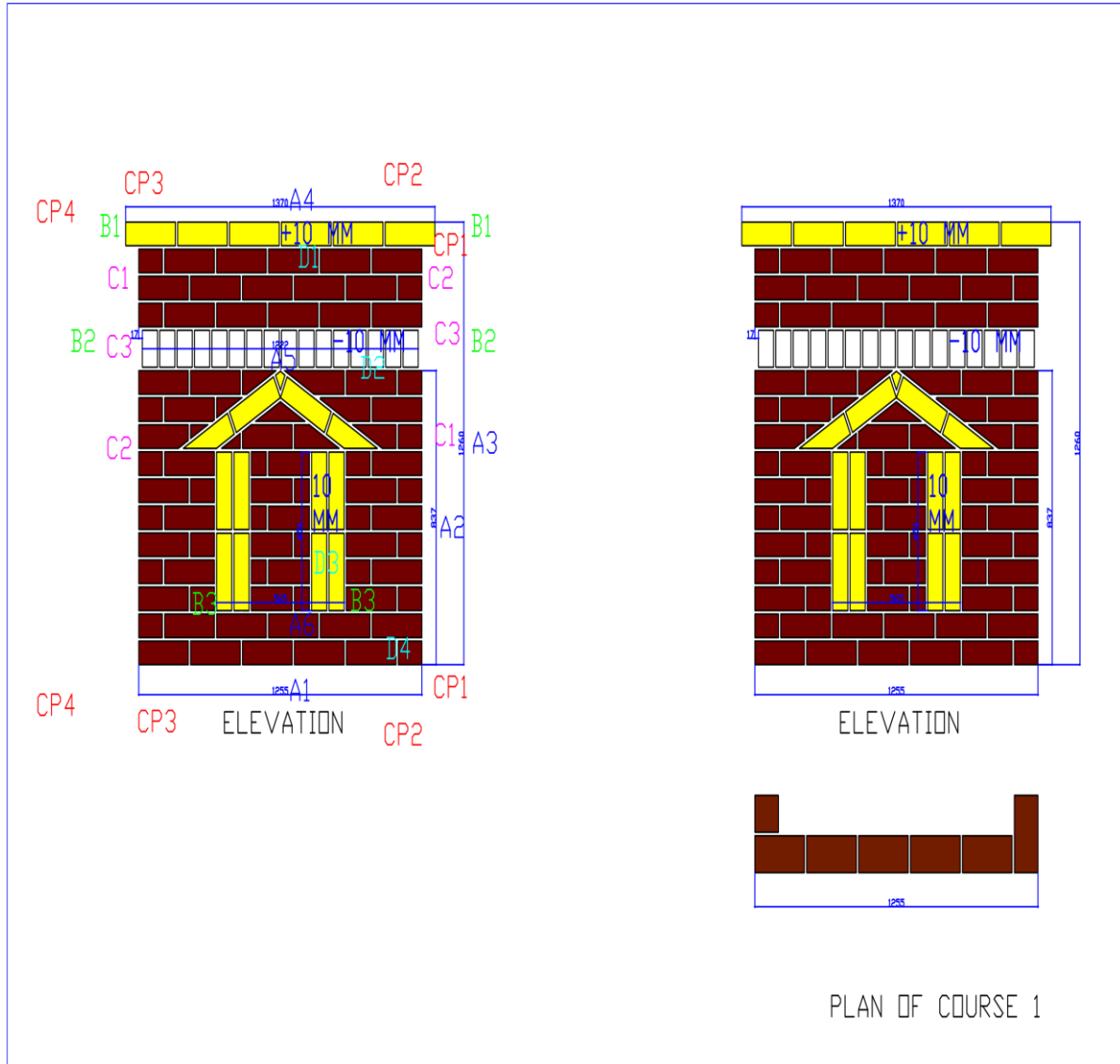
Eligibility Criteria (for IndiaSkills 2018 and WorldSkills 2019):

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 scores from 0 to 3 are awarded for conformity with industry standards (score 1 stands for 1/3 and score 2 for 2/3 of the maximum mark allotted for the criterion).

Example-Judgment Marking

If maximum marks for Judgment criteria is 1 and if all 3 Experts (Juries) give 3 points to a candidate, the candidate will get 1 mark for that aspect. If 2 Experts give 3 and 1 Expert gives 2 points, then candidate will get $(3+3+2)/9 \times 1 = 0.89$ marks for that aspect out of 1 mark.

Aspects are criteria's which are judged for assessment

Marking: Measurement						
Competitor Name -						
Sub Criterion - Module - Home shaped						
Aspect ID	Aspect of Sub Criterion	Max Mark	Aspect of Sub Criterion – Description	Requirement of Size	Result or Actual Value	Mark Awarded
A1	Dimension	4	Length of bottom layer	1255mm		
A2		3	Height from bottom layer to 11 th layer	837mm		
A3		4	Height of module	1260mm		

A4		4	Length of top	1370mm		
A5		3	Length of 12th layer	1222mm		
A6		2	External distance between bottom of yellow bricks	565mm		
B1	Level	3	Top of module	0mm		
B2		3	Level at 12 th layer	0mm		
B3		3	Bottom of vertical yellow bricks	0mm		
B4		2	Level of layer of top corner of inclined yellow bricks structure	0mm		
C1	Alignment	2	From Right corner of inclined edge of home to left side corner at bottom of top layer	0mm		
C2		2	From Left corner of inclined edge of home to right side corner at bottom of top layer	0mm		
C3		3	12th layer alignment	0mm		
C4		3	Diagonal of vertical brick	0mm		
CP1	Plumb	3	Right - front view	0mm		
CP2		2	Right -side view	0mm		
CP3		3	Left – front view	0mm		
CP4		2	Left – side view	0mm		
D1	Details	2	Projection of top layer	10mm (+)		
D3		2	Projection of vertical yellow bricks	10mm (+)		
D2		2	Projection of 12th layer	10mm (-)		
D4		2	Angle at right side bottom	90 degrees		
D5		2	Projection of inclined yellow bricks	10mm (+)		

D6		2	Angle at left side bottom	90 degrees		
D7		1	Distance of 12 th layer first brick from 11 th layer left side brick	17mm		
D8		3	Distance of bottom of vertical yellow bricks from left side	345mm		
D9		3	Distance of bottom of vertical yellow bricks from right side	345mm		
Total Marks		70				

Marking: Judgment

Competitor Name:

Sub Criterion: Module - Home shaped

Aspect ID	Aspect Of Sub Criterion	Max Mark	Aspect of Sub Criterion - Description	Mark Awarded
J1	Jointing	10	Uniformity of Joints for vertical and horizontal, regular joints size of 10mm, clean	
		2	Below Industry Standard	
		4	Industry Standard	
		8	Surpasses Industry Std. in some ways	
		10	Surpasses Industry Std. in most of the ways	
J2	Finishing	10	Overall Impression, Sharp Edge, Shape of Structure	
		2	Below Industry Standard	
		4	Industry Standard	

		8	Surpasses Industry Std. in some ways	
		10	Surpasses Industry Std. in most of the ways	
J3	Appearance	5	Cleaning Of Bricks and Overall Module	
J4		5	Cleaning Of Area Around	
Total Marks		30		
Remarks -				

Section - D

D. Infrastructure List

- Workshop Installation-Tools & Equipment positioned by Organizers
- Tool Kit-Tool & Equipment allowed to be brought by competitors for competitions

Infrastructure List -Bricklaying	
Workshop Installation	Quantity
Mortar Mixer	1
Water Tank	1
Water Bucket	1
Water Mug	1
Mortar Tub	1
Waste skip on wheels/Wheel barrow	1
Shovel foe cleaning of area	1
Workshop Installation - Tools	Quantity
Spirit Level 300mm	1
Spirit Level 1m	1
Spirit Level 2m	1
Measuring Tape	1
Brick Cutting Machine/Brick Saw Table	1
Brick Trowels Big	1
Brick Trowel Small	1
Brick Hammer	1
Straight Edge 6 feet	1
Right angle big	1
Right Angle Small	1
Combination Square	1
Racker Smoother	1
Round Racker	1
Materials/ Consumables	Quantity
Plywood 1m * 1.5m (If table is possible)	1
Gauged Bond Paper	1
Scrubbing Brush for cleaning	1
Broom	1
Dustpan	1
Sponge	2
Line Dori	1 bundle

Bricks 220*105*67 mm (hollow) required per module	100 nos
Bricks 220*105*67 mm yellow color per module	30 nos
Mortar- Ready mix 40kg per bag	3 bags
Health & Safety Instruments	Quantity
Ear Plug	1 pair
Knee pad	1 pair
Nose mask	1
Goggle	1
Safety Shoes	1 pair
Hand Gloves	1 pair
Stationary	Quantity
Calculator	1
Scale 300mm	2
Protractor Small	1
Geometric Compass box	1
Marker Pen	4

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. **Brick Sizes for all colors :** 220 * 105 * 67 mm
Joint Size – 10mm bed joint (horizontal) and 5 mm raked (deep). Vertical joints to be in straight line
4. Mark the color of bricks
5. **Projection:** +/- 0 is our reference main wall. Consider + and – projection with reference to that wall. 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. The Competitors must wear proper dress suiting the task and wear goggles while performing wood work
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.