446/2 SG BUILDING CONSTRUCTION Paper 2 (PROJECT) May - October 2022



THE KENYA NATIONAL EXAMINATIONS COUNCIL

Kenya Certificate of Secondary Education

BUILDING CONSTRUCTION PROJECT

SCORING GUIDE

PROJECT: TEST A - BLOCKWORK AND BRICKWORK TEST B - TIMBER ROOF MODEL

CANDIDATE'S NAME _____

INDEX NO._____

NOTES:

- a) Masonry work should be set on a firm and fairly level ground.
- b) All dimensions are in millimetres unless otherwise stated.
- c) General Tolerance:
 - (i) ± 5 mm on masonry work.
 - (ii) ± 4 mm on carpentry work.
 - (iii) + 2mm on carpentry joints.
- d) Scribe your index number on all your projects.
- 2. Marking guide
 - (a) Within tolerance award full mark.
 - (b) Outside tolerance award no mark.

PROJECT MARKED OUT OF		CANDIDATE'S SCORE
TEST A	54	
TEST B	46	
GRAND TOTAL	100	

This Scoring Guide consists of 4 printed pages.

TEST A: BLOCKWORK AND BRICKWORK

ITEM NO.	AREAS TO BE MARKED		MAXIMUM MARKS	MARKS SCORED
1.	Interpretation of the drawing.		2	
		Sub-total	2	
2.	Dimensions			
	710, 695, 500, 620, 225, 600, 315, 465	(10 - 1)	10	
	Height 720, 960	(10 x 1) Sub-total	10 10	
3.	Plumbness	Sub-total	10	
5.	Any 6 places @ 1	(6 x 1)	6	
		Sub-total	6	
4.	Squareness	Sub-total	0	
т.	Any 6 places @ 1	(6 x 1)	6	
		Sub-total	6	
5.	Levelness			
	Any 4 places @ 1	(4 x 1)	4	
		Sub-total	4	
6.	Plaster work			
		places 3 x 1)	3	
	- Squareness two places -	·		
	Top and bottom	(2 x 1)	2	
	- Straightness by diagonals 2 faces	$(2 \times 2 \times \frac{1}{2})$	2	
	- Wood front finish	2	1	
		Sub-total	8	
7.	Bonding			
	- Brickwork		2	
	- Blockwork		3	
	- Pier		2	
		Sub-total	7	
8.	Archwork			
	- Rise (90 mm)		2	
	- Uniformity of voussoirs		2 2	
	- Plumb voussoirs	$(\text{Any 4 x } \frac{1}{2})$	2	
	- Straightness with wall	-	1	
	- Smooth soffit		1	
		Sub-total	8	
9.	Floor screed			
	- Level at 2 places by diagonals	(2 x 1)	2	
	- Steel float finish		1	
		Sub-total	3	
	GRA	ND TOTAL	54	

ITEM MAXIMUM MARKS **AREAS TO BE MARKED** NO. MARKS SCORED 1. **Correct interpretation** 2 **Sub-total** 2 **Dimensions**: 2. 450 2 (2×1) 350 2 (2×1) 150 1 40 x 40 studs (any 2 x 1) 2 40 x 20 wall plate (Any 3 x 1) 3 40 x 20 rafters Pitch 30° 2 50 mm eaves 1 Sub-total 13 3. **Joints** Half lap (wall plate to wall $(4 x \frac{1}{2})$ 2 plate) (4 x 1) Birdsmouth (Rafter to wall 4 plate) Butt joint: $(4 \text{ x } \frac{1}{2})$ $(4 \text{ x } \frac{1}{2})$ $(4 \text{ x } \frac{1}{2})$ Eaves to facia board 2 2 Ridge and rafter 2 Stud to wall plate $(4 x \frac{1}{2})$ Rafter to the beam 2 Sub-total 14 **Squareness** 4. Wall plate to stud (4 x 1) 4 Wall plate to wall plate (4 x 1) 4 2 Fascia board to soffit (2 x 1) Sub-total 10 Alignment 5. Purlins (2 x 1) 2 (2 x 1) 2 Rafter **Sub-total** 4

TEST B: MODEL TRUSSED ROOF

ITEM NO.	AREAS TO BE MARKED	MAXIMUM MARKS	MARKS SCORED
6.	Stability		
	Not rocking	1	
	Sub-total	1	
7.	Plumbness		
	Plumb cut on rafter (2 x 1)	2	
	Sub-total	2	
	GRAND TOTAL	46	