

Name: _____ Index No: _____ / the

2710/106
ARCHITECTURAL COMMUNICATION
AND TECHNICAL DRAWING
June/ July 2014
Time: 3 hours

Candidate's Signature: _____

Date: _____



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN ARCHITECTURE
MODULE I**

ARCHITECTURAL COMMUNICATION AND TECHNICAL DRAWING

3 hours

INSTRUCTIONS TO CANDIDATES

*Write your name and index number in the spaces provided above.
Sign and write the date of the examination in the spaces provided above.
You should have the following for this examination:*

- Drawing paper size A2;*
- Drawing instruments;*
- Pocket calculator.*

*This paper consists of EIGHT questions in TWO sections; A and B.
Answer FIVE questions choosing THREE questions from section A and TWO questions from section B.*

- All questions carry equal marks.*
- Maximum marks for each part of a question are as shown.*
- All dimensions are in mm.*
- Candidates should answer the questions in English.*

For Examiner's Use Only

Question	1	2	3	4	5	6	7	8	TOTAL SCORE
Candidate's Score									

This paper consists of 16 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

SECTION A: ARCHITECTURAL COMMUNICATION

Answer any **THREE** questions from this section.

1. Figure 1 shows part plan of a workshop to be used for storing engines and machine spare parts. To a scale of 1:5, draw section 'C-C' from foundation to the eaves given the following information:

- Foundation strip; 900 mm below ground level
- Foundation walls 225 mm thick-stone work
- Floor oversite concrete with cement/ sand screed 150 mm thick
- Wall plate 100 x 50 mm
- Ring beam 225 x 150 mm reinforced with Y10 bars
- Gabled roof pitch 30°
- Floor to ceiling level 2500 mm
- Roof covering: corrugated iron sheets

Assume any other relevant information.

(20 marks)

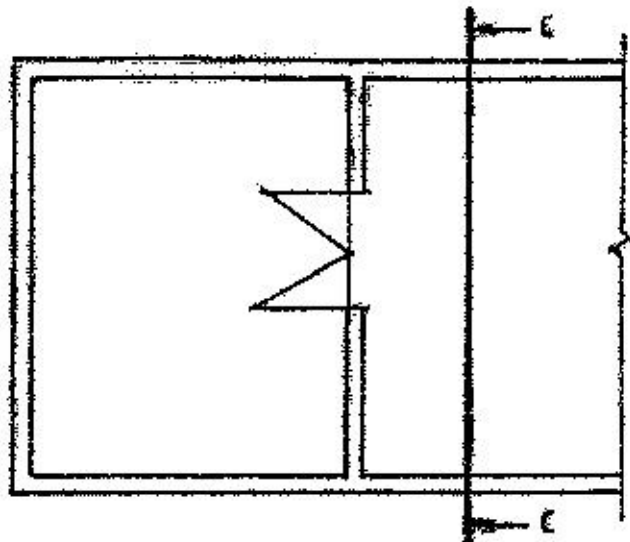


Fig. 1

2. Figure 2 shows the plan of a simple house. Taking the height of walls as 2750 mm and the width of the windows as 1200 mm, draw to a scale of 1:100:

- (a) elevation 3 showing any rendered finish; (10 marks)
 (b) section 1-1 showing all substructure components. (10 marks)

Assume any relevant information.

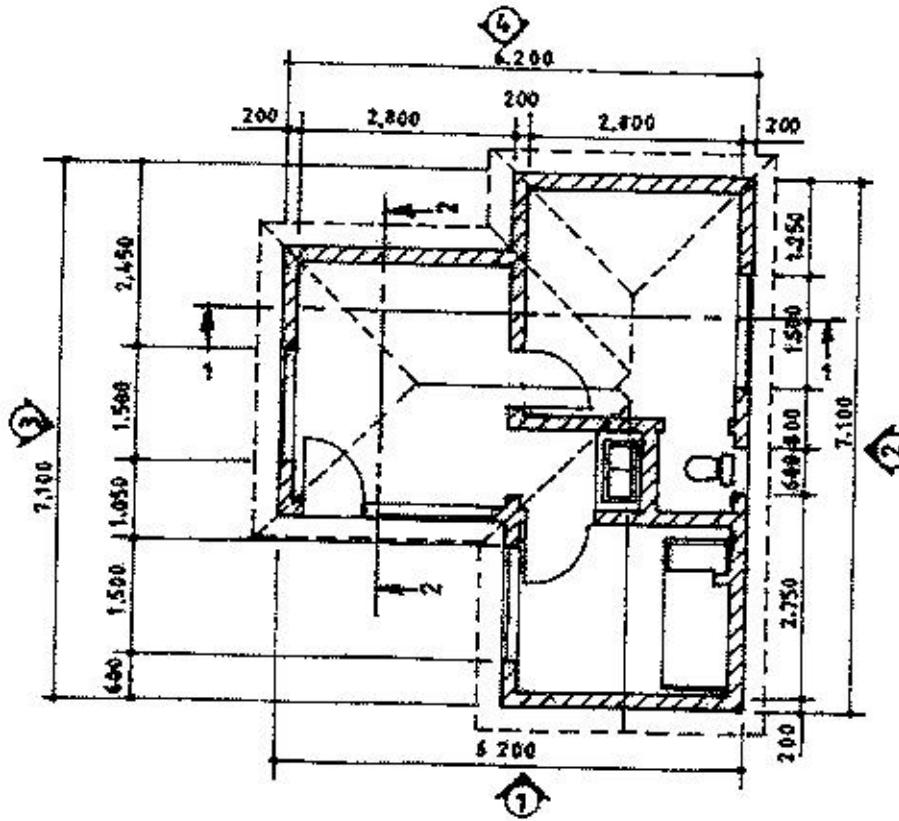


Fig. 2

3. (a) Describe three types of perspectives. (6 marks)
- (b) Figure 3 shows a plan of kitchen. From the plan draw a three dimensional drawing showing the kitchen fittings given along the section x-x. (14 marks)

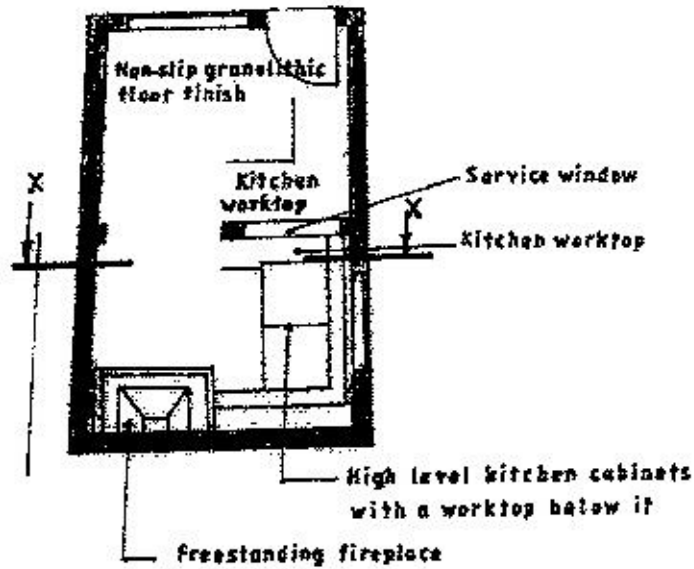


Fig. 3

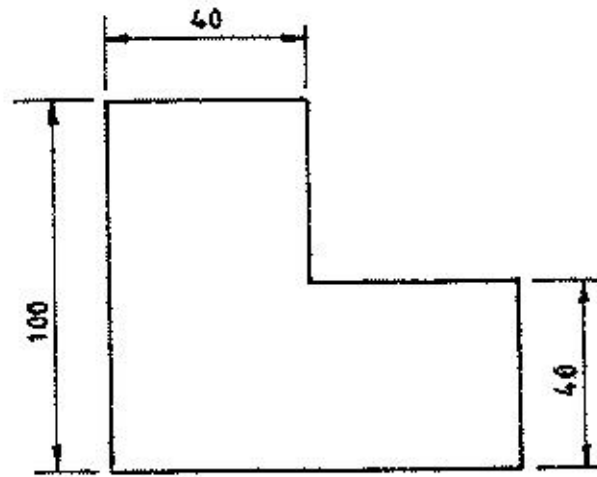
4. Figure 4 shows two views of an object in first angle projection. Draw full size a two-point perspective view of the object given that:

Distance of picture plane (PPL) to horizontal line (HL) = 50 mm

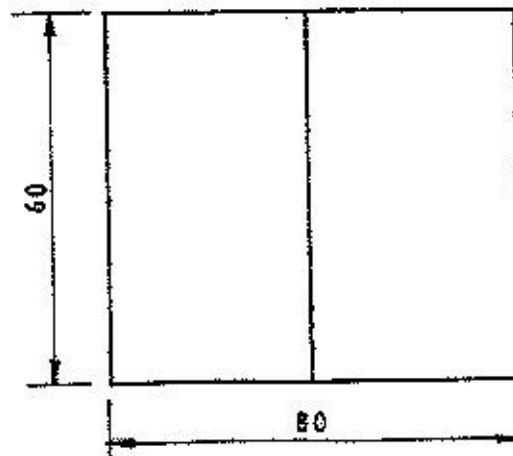
Distance of horizontal line (HL) to ground line (GL) = 60 mm

Assume any other relevant information.

(20 marks)



Front Elevation



Plan

Fig. 4

5. (a) List six tools and materials used in model making. (3 marks)
- (b) Explain the meaning of the following types of models:
- (i) site models;
 - (ii) form models;
 - (iii) detail models;
 - (iv) scheme models.
- (8 marks)
- (c) Figure 5 shows the front elevation of a semi-circular arch. Arcs ab, bc and cd are equal and lines passing through points b, c and d are normals to the curve. To a scale of 1:10, draw the arch. (9 marks)

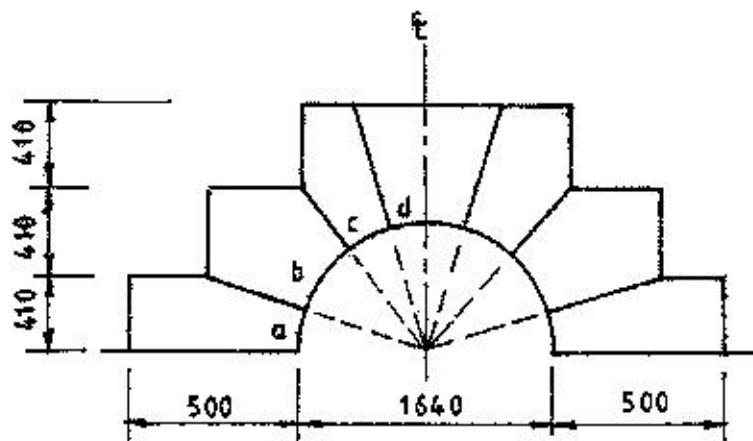


Fig 5

SECTION B: TECHNICAL DRAWING

Answer any TWO questions from this section.

6. (a) State five general rules observed in line work. (5 marks)
- (b) Sketch the following types of lines and state where each is used:
- (i) construction lines;
 - (ii) hidden lines;
 - (iii) centre lines;
 - (iv) dimension lines.
- (8 marks)
- (c) With the aid of a sketch, outline the procedure of bisecting an angle. (7 marks)

7. (a) Using concentric circle method construct an ellipse with a major axis of 1200 mm and a minor axis of 70 mm. (8 marks)
- (b) Figure 6 shows a front elevation and a plan of a shaped block. Draw a free hand isometric view of the block taking 'x' as the lowest point. (12 marks)

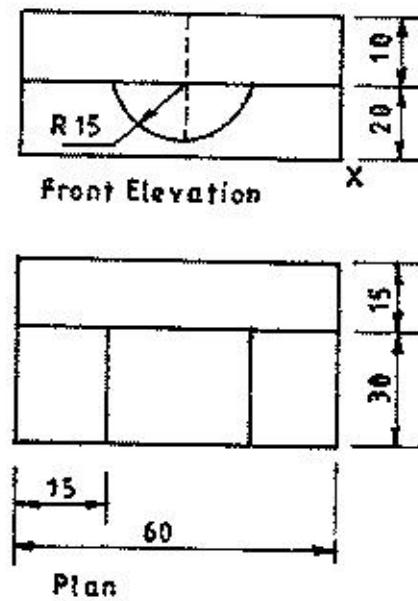


Fig. 6

