

1704/203
BUILDING CONSTRUCTION II
AND COMPUTER AIDED DESIGN
June/July 2021
Time: 3 hours

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ADVANCED TECHNOLOGY
P. O. Box 1738, KISUMU



THE KENYA NATIONAL EXAMINATIONS COUNCIL
CRAFT CERTIFICATE IN BUILDING TECHNOLOGY
MODULE II
BUILDING CONSTRUCTION II AND COMPUTER AIDED DESIGN

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

- Answer booklet;*
- Computer with CD writer loaded with CAD software;*
- Scientific calculator/Mathematical table;*
- Blank re-writable CD;*
- A3 printing paper*

This paper consists of SEVEN questions in TWO sections, A and B.

Answer THREE questions from section A and TWO questions from section B. Question 5 in section B is compulsory.

All questions carry equal marks.

Candidates should answer the questions in English.

This paper consists of 5 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: BUILDING CONSTRUCTION II

Answer **THREE** questions from this section.

1. (a) (i) Define the following terms:
- (I) hearth;
 - (II) flue;
 - (III) throat;
 - (IV) breast.
- (ii) State **four** functional requirements of fireplaces, flues and chimneys. (8 marks)
- (b) With the aid of sketches, describe the following types of fences:
- (i) lattice fence;
 - (ii) picket fence. (12 marks)
2. (a) (i) Define each of the following terms:
- (I) riser;
 - (II) tread;
 - (III) waist;
 - (IV) basustrades.
- (ii) Outline **three** advantages of precast concrete stairs. (10 marks)
- (b) Sketch and label a typical eave detail with timber members and GCI sheets as roofing. (10 marks)
3. (a) Define each of the following terminologies:
- (i) skirting;
 - (ii) cornice;
 - (iii) architrave;
 - (iv) dado rails. (4 marks)
- (b) Describe the following types of scaffolds:
- (i) put log;
 - (ii) independent;
 - (iii) gantry. (9 marks)
- (c) (i) Define the term 'landscaping'.

(ii) Describe the following landscaping plants:

- (I) shrubs;
- (II) grasses;
- (III) climbers.

(7 marks)

4. (a) Describe the following types of glasses:

- (i) translucent glass;
- (ii) wired glass.

(6 marks)

(b) Sketch and label the following types of doors:

- (i) ledged and braced door;
- (ii) framed, ledged and braced door.

(14 marks)

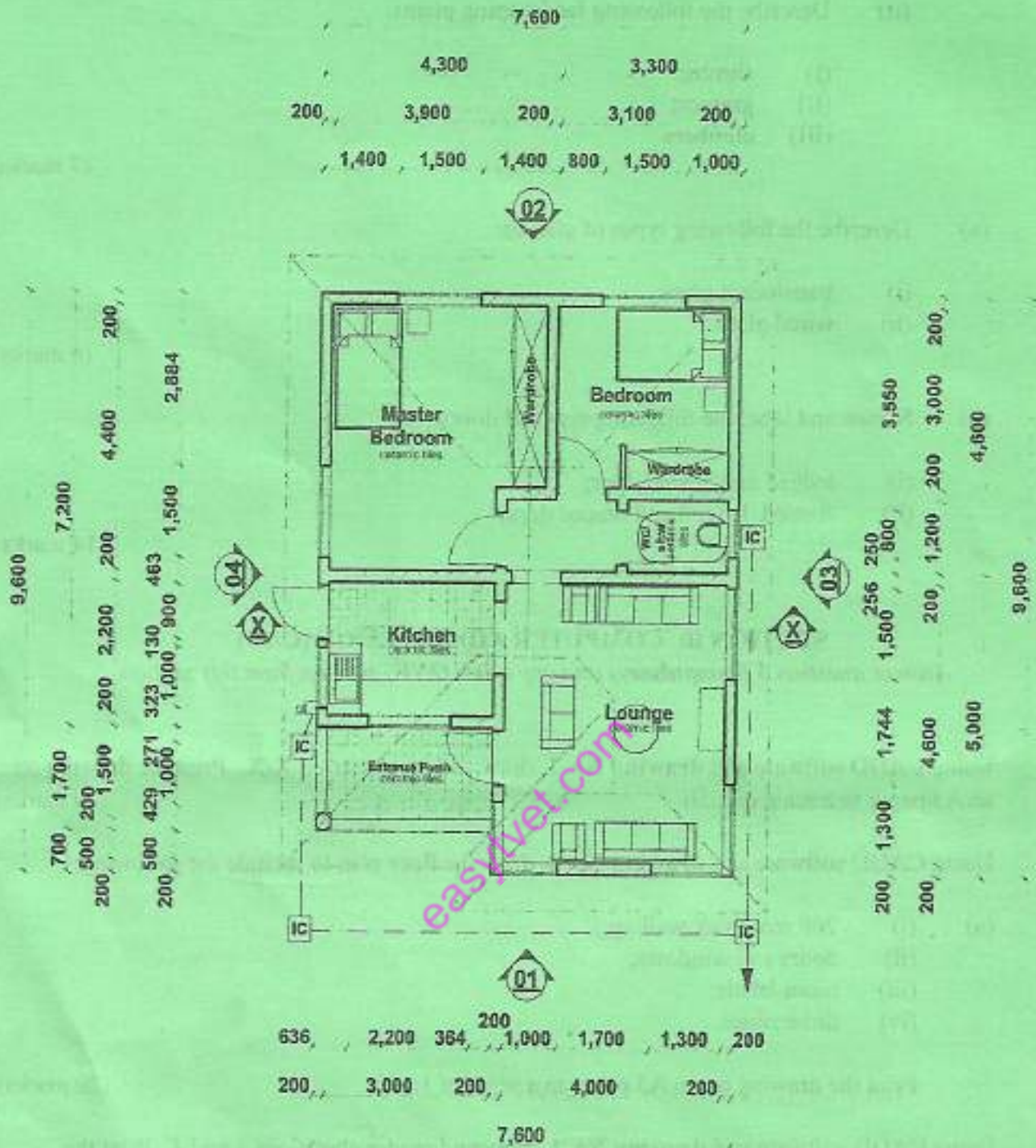
SECTION B: COMPUTER AIDED DESIGN (CAD)

Answer question 5 (compulsory) and any other ONE question from this section.

5. Using CADD software and **drawing No. 1**, draw and label section X-X. Print the drawing on an A3 paper to a scale of 1:50. (20 marks)
6. Using CADD software and **drawing No. 2**, draw the floor plan to include the following:
- (a) (i) 200 mm thick walling;
 - (ii) doors and windows;
 - (iii) room labels;
 - (iv) dimensions.

Print the drawing on an A3 paper to a scale of 1:100. (20 marks)

7. Using CADD software and **drawing No. 1**, draw and render elevations 1 and 4. Print the drawing on an A3 paper to a scale of 1:50. (20 marks)

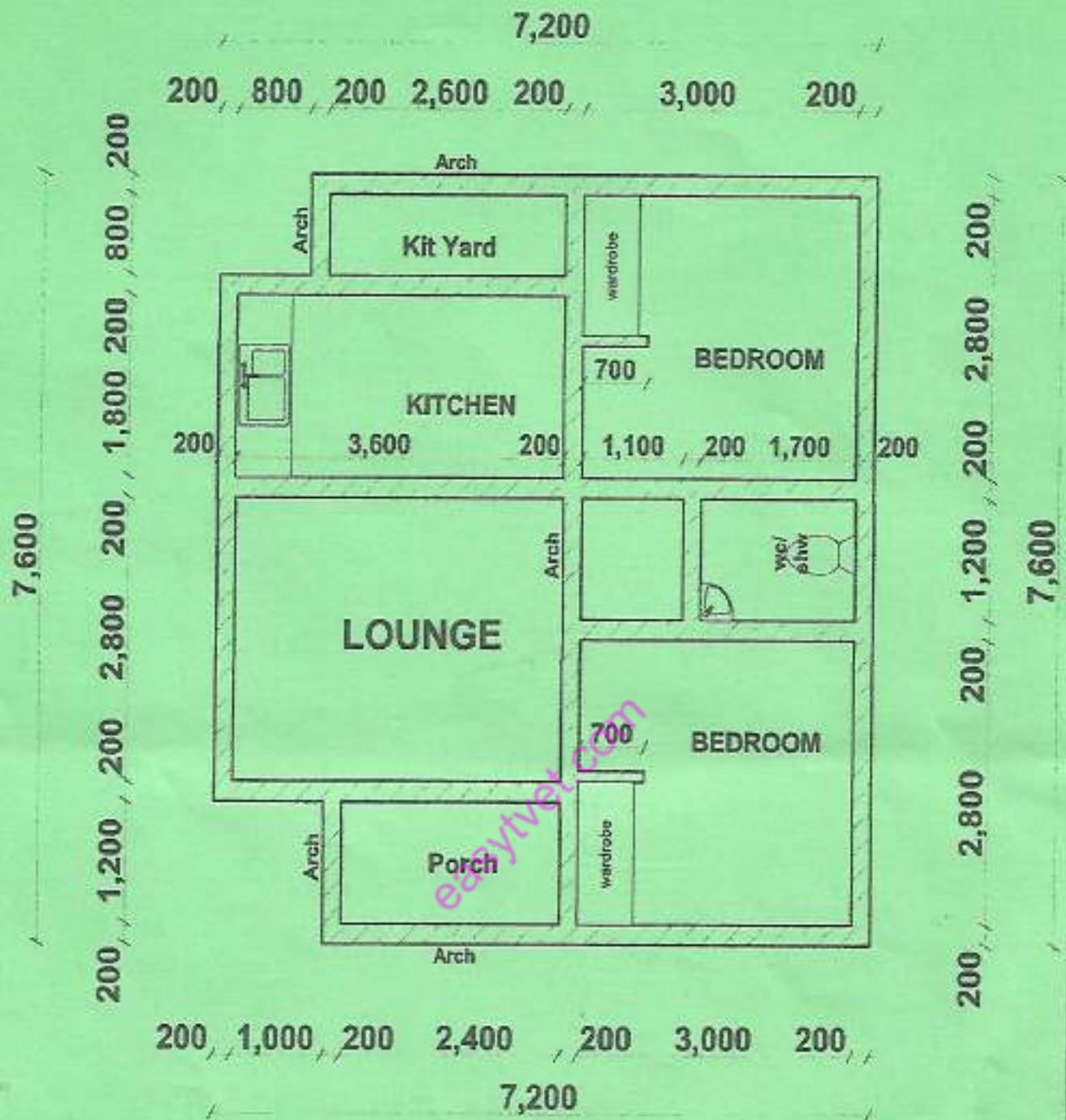


FLOOR PLAN.

Assumption

Assume any relevant information not provided.

DRW. No. 1



FLOOR PLAN

Assumption

Assume any relevant information not provided.

DRW. No. 2

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