

1704/203

BUILDING CONSTRUCTION II

AND CADD

June/July 2018

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
CRAFT CERTIFICATE IN BUILDING TECHNOLOGY
MODULE II

BUILDING CONSTRUCTION II AND CADD

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet;

A3 printing papers;

Drawing instruments;

Blank compact disk (CD);

A computer installed with CADD software.

This paper consists of SEVEN 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 indicated.

Candidates should answer the questions in English.

This paper consists of 4 printed pages.

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

SECTION A: BUILDING CONSTRUCTION II

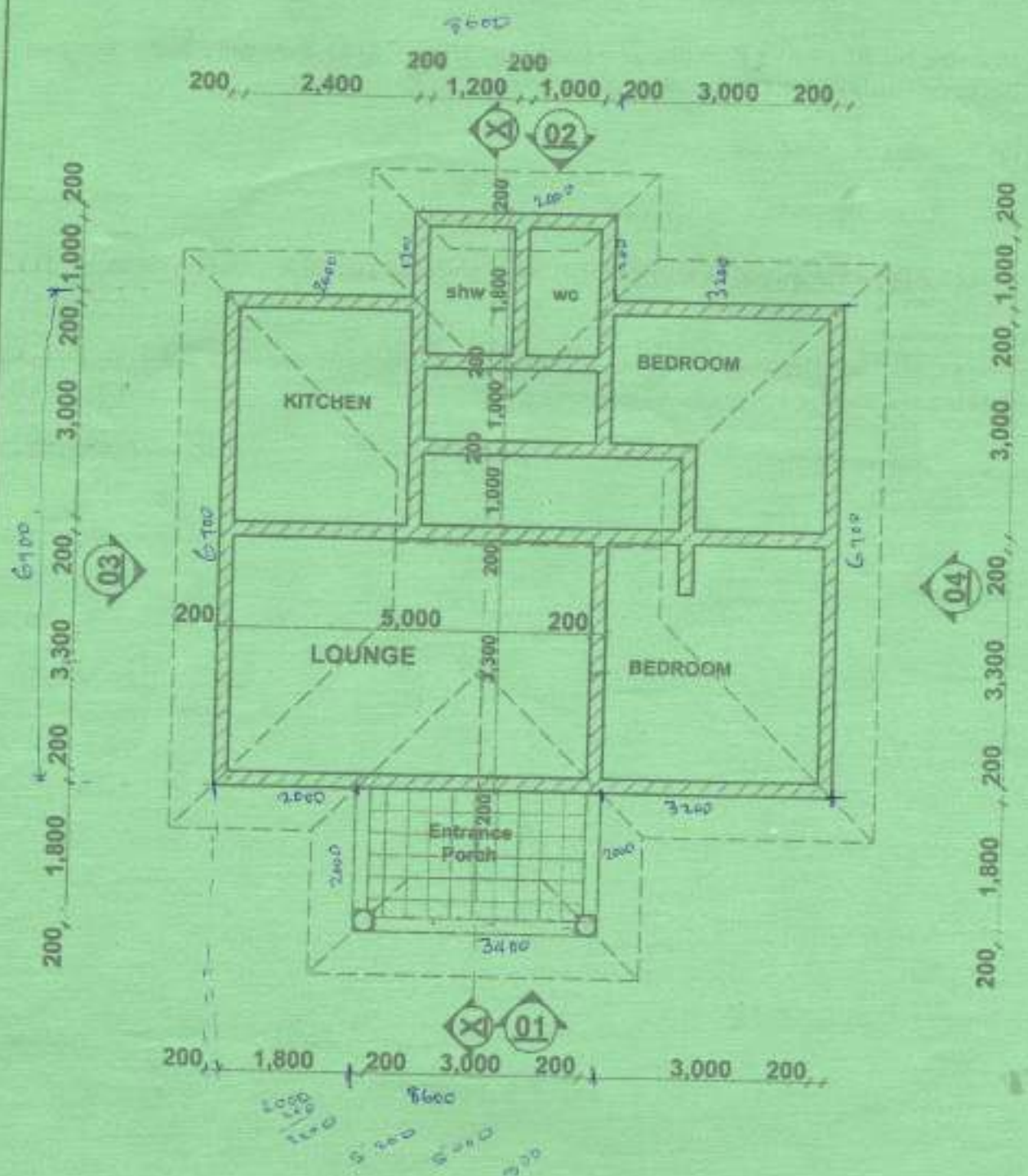
Answer **THREE** questions from this section.

1. (a) Define the following terms as used in staircase construction:
 - (i) riser;
 - (ii) tread;
 - (iii) waist;
 - (iv) balustrade. (6 marks)
- (b) State two advantages of precast concrete stairs. (2 marks)
- (c) Describe the following types of scaffolding:
 - (i) independent;
 - (ii) putlog;
 - (iii) gantry. (12 marks)
2. (a) Outline four functions of a roof. (6 marks)
- (b) Describe the function of the following iron mongery used on doors:
 - (i) hinges;
 - (ii) locks;
 - (iii) letter plate. (6 marks)
- (c) Sketch and label a framed ledged and braced door. (8 marks)
3. (a) Sketch and label a window sill detail. (4 marks)
- (b) State four types of windows based on their mode of opening. (2 marks)
- (c) Outline four factors to consider in selection of trees for landscaping. (6 marks)
- (d) Describe the following basic constituents of paint:
 - (i) binder;
 - (ii) pigment;
 - (iii) solvents;
 - (iv) driers. (8 marks)
4. (a) Describe the following types of paints:
 - (i) oil based paint;
 - (ii) water based paint. (6 marks)
- (b) Sketch and label a typical fireplace detail. (14 marks)

SECTION B: COMPUTER AIDED DESIGN AND DRAFTING

Answer TWO questions from this section.

5. **Drawing No. 01** shows a floor plan of a bungalow. Using CADD, draw and plot the floor plan layout to a scale of 1:100 to include the following on an A3 paper.
- (a) doors and windows;
 - (b) dimensions;
 - (c) sanitary fittings. (20 marks)
6. Using CADD software and **Drawing No. 01**, draw and label section X - X. Plot the drawing to a scale of 1:50 on an A3 paper. (20 marks)
7. Using CADD and **Drawing No. 01**, draw and render elevations 01, and 03 and plot the drawing to a scale of 1:50 on an A3 paper. (20 marks)



Drg. No. 01

*Assumption.
Assume any relevant information
not provided.*

THIS IS THE LAST PRINTED PAGE.