

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.

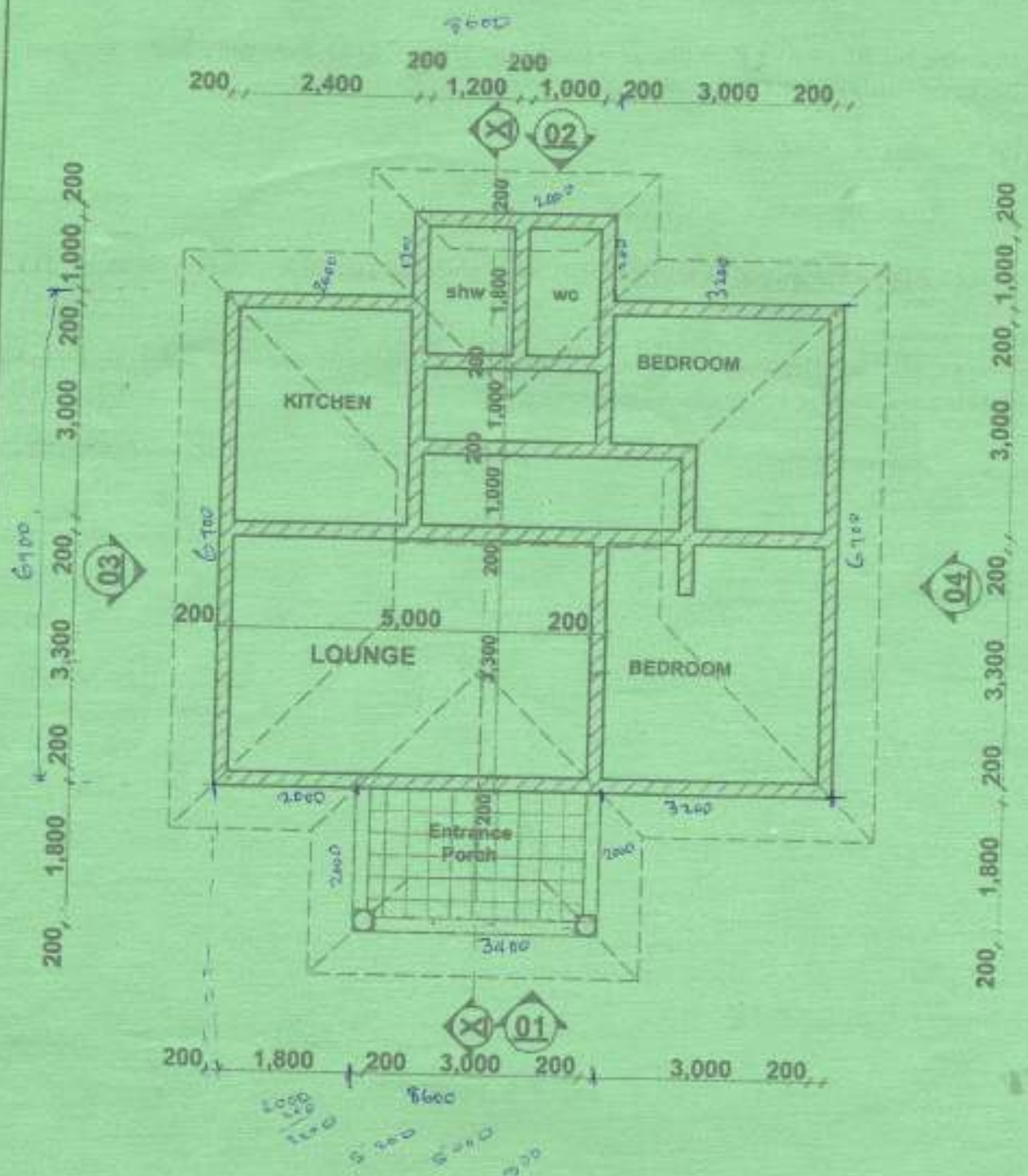
1. (a) Define the following terms as used in staircase construction:
  - (i) riser;
  - (ii) tread;
  - (iii) waist;
  - (iv) balustrade. (6 marks)
- (b) State two advantages of precast concrete stairs. (2 marks)
- (c) Describe the following types of scaffolding:
  - (i) independent;
  - (ii) putlog;
  - (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.*

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