

2705/203
CONSTRUCTION MANAGEMENT I
AND WORKSHOP TECHNOLOGY II
June/July 2020
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN BUILDING CONSTRUCTION
MODULE II**

CONSTRUCTION MANAGEMENT I AND WORKSHOP TECHNOLOGY II

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet;

Scientific 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 indicated.

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: CONSTRUCTION MANAGEMENT I

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

1. (a) State **five** roles of each of the following stakeholders in the construction industry.
- (i) National environment management authority;
 - (ii) National construction authority.
- (10 marks)
- (b) Explain **three** classifications of construction work. (6 marks)
- (c) Explain each of the following terms:
- (i) Management;
 - (ii) Organization.
- (4 marks)
2. (a) Describe **four** functions of management. (8 marks)
- (b) Outline **six** principles of management. (4 marks)
- (c) Outline **two** methods of communication. (3 marks)
3. (a) Explain **two** types of each of the following:
- (i) Organizational structures;
 - (ii) Organizational relationship.
- (8 marks)
- (b) Outline **four** types of contracts in the construction industry. (6 marks)
- (c) Outline **four** types of contract documents. (6 marks)
4. (a) (i) Explain the terms 'serial tendering' as used in the construction industry.
- (ii) State **two** advantages of serial tendering. (4 marks)
- (b) Explain **five** remedies to breach of contract. (10 marks)
- (c) Outline **four** essentials of a valid contract. (6 marks)

5. **Figure 1** shows a site organization plan of a construction project.

- (a) State **four** reasons for providing hoarding. (4 marks)
- (b) Explain **two** reasons for placing the gate along Road A and not Road B. (4 marks)
- (c) Explain **six** benefits of organizing the site as shown. (12 marks)

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Main access road (Road A)

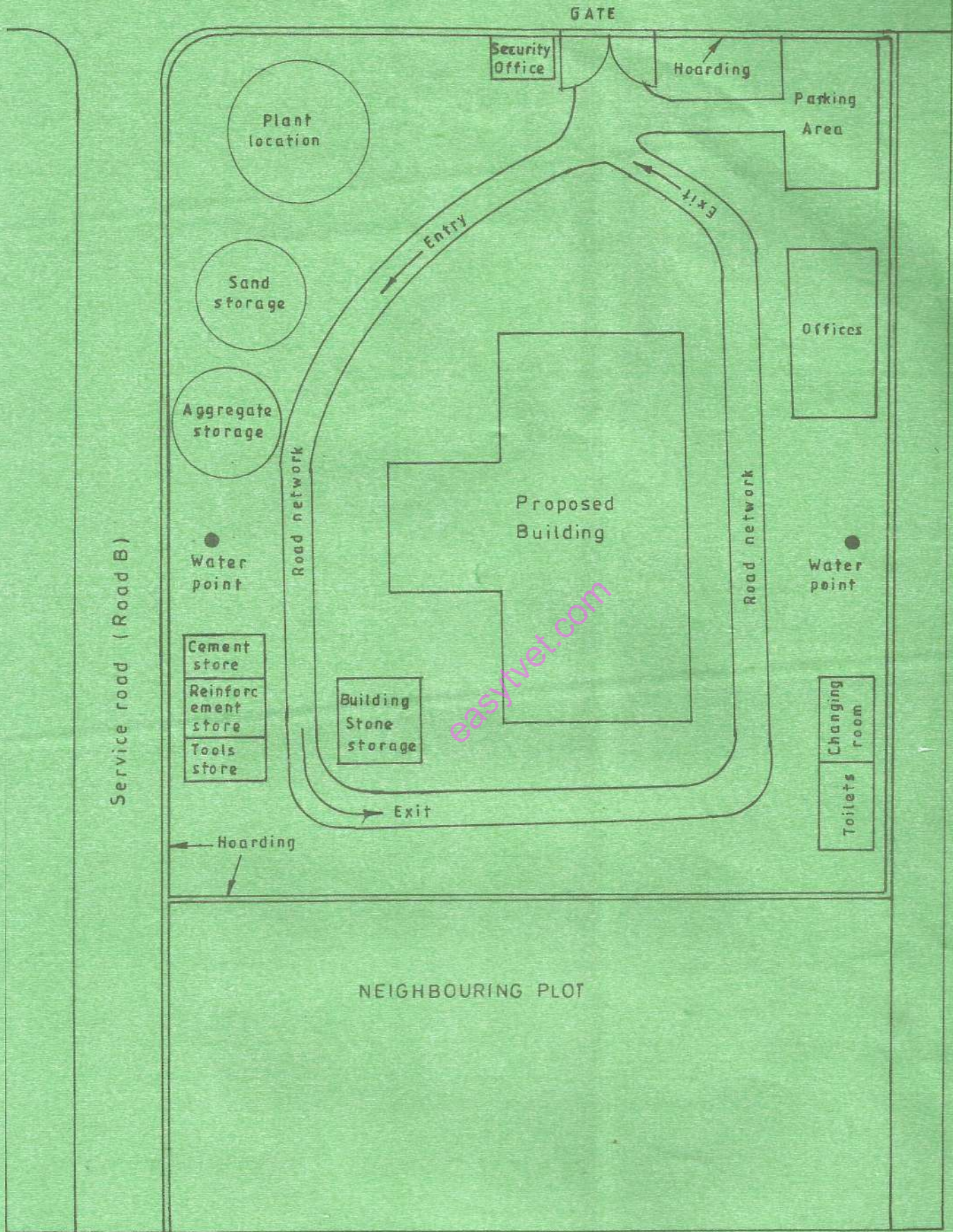


Fig. 1

SECTION B: WORKSHOP TECHNOLOGY II (ELECTRICAL)

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

6. (a) Sketch and label the following tools used in electrical installation:
- (i) flat screw driver;
 - (ii) ball peen hammer;
 - (iii) needle nose pliers.
- (12 marks)
- (b) Explain **four** factors to consider when selecting the source of power supply. (8 marks)
7. (a) Explain the term “material estimation” as used in electrical installation. (2 marks)
- (b) State **four** IEEE regulations relating to electrical installation of conduits. (4 marks)
- (c) State **four** advantages of each of the following source of power:
- (i) hydro-electric;
 - (ii) wind power.
- (8 marks)
- (d) Sketch the following symbols as used in electrical installation.
- (i) two gang switch;
 - (ii) Ac constant voltage;
 - (iii) fuse.
- (6 marks)
8. (a) Explain each of the following terms as used in electrical installation.
- (i) cable;
 - (ii) resistance;
 - (iii) looping in.
- (6 marks)
- (b) State **four** comparisons between wiring diagrams and schematics diagrams in electrical installation. (8 marks)
- (c) Sketch each of the following:
- (i) circular tee junction box;
 - (ii) inspection tee;
 - (iii) two way switch circuit controlling a lamp.
- (6 marks)

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