



2705/203

**CONSTRUCTION MANAGEMENT I
AND WORKSHOP TECHNOLOGY II**

June/July 2017

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN BUILDING TECHNOLOGY
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 4 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) Describe the following types of contractors in the construction industry.
 - (i) large contractors;
 - (ii) medium sized contractors;
 - (iii) small contractors.

(9 marks)
- (b) State **three** factors that may affect the size of a construction firm. (3 marks)
- (c) Explain the role of the contractor during the construction process. (8 marks)
2. (a) List **four** contract documents that are commonly used. (4 marks)
- (b) Distinguish between the following filing classification:
 - (i) alphabetical;
 - (ii) numerical.

Handwritten note: this is whereby the documents are placed in a file according to their hierarchy in the alphabet.

(4 marks)
- (c) State **six** office equipment that are likely to be used in a construction firm. (6 marks)
- (d) Explain **three** forms of communication used in the building industry. (6 marks)
3. (a) State **four** welfare provisions that are important on a construction site. (4 marks)
- (b) Babu Construction has been awarded a tender for construction of four storey block. Explain the factors the construction firm needs to consider when planning the site layout. (10 marks)
- (c) Security on a construction site is an important factor. As a site manager explain how it can be enhanced. (6 marks)
4. (a) Define management. (3 marks)
- (b) State **five** qualities of a good manager. (5 marks)
- (c) Explain how the following functions of management contributes to successful organization:
 - (i) planning;
 - (ii) organising;
 - (iii) forecasting;
 - (iv) coordinating.

Handwritten notes: - deciding in advance what is to be done. - determining the activities to be done. - the harmonizing of all the assets and employees into a coherent whole. Issuing orders giving guidelines and supervision.

(12 marks)

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- (a) (i) Define the term 'contract'. (2 marks)
- (ii) State **four** situations under which a contract may be discharged. (4 marks)
- (b) Describe the following types of contracts:
- (i) lump sum contract; - this is where
- (ii) cost plus contract; - this is where the contractor is paid the basic cost of materials & labour plus a fee for supervision, overheads & profit.
- (iii) labour only contract;
- (iv) package deal contract. (8 marks)
- (c) Describe negotiated tendering stating its advantages. (6 marks)

SECTION B: WORKSHOP TECHNOLOGY II

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

6. (a) Discuss IEE regulations with regard to installation of electrical conduits. (9 marks)
- (b) Distinguish between a switch and a circuit breaker. (4 marks)
- (c) State the colour identification of the following cables:
- (i) earth;
- (ii) neutral. (3 marks)
- (d) Define the following:
- (i) cable;
- (ii) insulator. (4 marks)
7. (a) Sketch symbols used for the following electrical gadgets:
- (i) switch socket outlet;
- (ii) typical distribution board;
- (iii) two way one gang switch;
- (iv) intermediate switch. (4 marks)
- (b) Sketch to show two sockets connected to a power supply in:
- (i) parallel;
- (ii) ring circuit. (8 marks)



(c) Explain the importance of checking insulation of a circuit.

(8 marks)

8. ✓ (a) Explain **four** reasons for earthing electrical appliances.

(6 marks)

(b) State **two** reasons why safety provisions in an electrical installation is important.

(4 marks)

(c) Explain why the following types of tests are carried out in a completed electrical installation to ensure safety according to IEE regulation:

(i) insulation test;

(ii) polarity test.

(10 marks)

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