

1301/313

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SITE AND WORKSHOP MANAGEMENT

June/July 2019

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**CRAFT CERTIFICATE IN CARPENTRY AND JOINERY
CRAFT CERTIFICATE IN MASONRY
CRAFT CERTIFICATE IN PLUMBING**

SITE AND WORKSHOP MANAGEMENT

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet;

Drawing instruments.

Answer FIVE of the following EIGHT questions.

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 the pages are printed as indicated and that no questions are missing.

1. (a) State **five** advantages of plant maintenance. (5 marks)
- (b) (i) State **four** factors to consider in selection of a workshop site.
- (ii) Outline **two** essential services for a workshop. (5 marks)
- (c) Outline **four** contract documents. (6 marks)
- (d) Explain **two** regulations governing workshop design. (4 marks)
2. (a) State **four** benefits of instilling discipline in a construction firm. (4 marks)
- (b) Explain **four** documents used for material procurement. (8 marks)
- (c) Explain **four** spaces to consider in design of a workshop layout. (8 marks)
3. (a) State **four** reasons for site investigation. (4 marks)
- (b) Outline **four** factors to consider in the design of a site layout. (6 marks)
- (c) Explain **five** outcomes of designing a site layout. (10 marks)
4. (a) State:
 - (i) **four** roles of a quantity surveyor in a construction firm;
 - (ii) **three** roles of a local authority in the building industry. (7 marks)
- (b) State **five** advantages of trade unions. (5 marks)
- (c) Explain **four** non-economic causes of industrial disputes. (8 marks)



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Winkoath
Winkoath
Bill of quantity

5. (a) State **four** categories of mechanical plant giving **one** use for each. (6 marks)
- (b) **Table 1** shows the activities and duration of a construction project.
- (i) prepare the network diagram;
- (ii) show the critical path.

(14 marks)

Table 1

ACTIVITY	OPERATION	DURATION (WEEKS)
1 - 2	A	3
1 - 4	B	8
1 - 3	C	4
2 - 5	D	7
4 - 6	E	5
4 - 9	F	3
3 - 6	G	12
5 - 6	H	4
6 - 7	I	3
5 - 7	J	9



6. (a) State **four** regulations governing employment in construction industry. (2 marks)
- (b) Outline the procedure of disciplining an employee in a construction firm. (6 marks)
- (c) Outline **four** methods of motivating workers in construction industry. (6 marks)
- (d) Explain **three** systems of filing. (6 marks)
7. (a) Outline **four** reasons for having inventory columns. (6 marks)
- (b) Explain **three** methods of maintaining construction equipment. (6 marks)
- (c) Explain **four** types of contracts. (8 marks)

- Package deal contract
 - Lumpsum contract
 - Cost reimbursement

8. (a) Explain how each of the following is minimised on a construction site:
- (i) material wastage;
 - (ii) material pilferage.
- (4 marks)
- (b) Explain **two** sources of finance for acquisition of construction equipment. (4 marks)
- (c) Explain each of the following types of tendering:
- (i) selective;
 - (ii) negotiated.
- (4 marks)
- (d) Explain **four** types of statutory deductions on income. (8 marks)

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