

1301/313

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SITE AND WORKSHOP MANAGEMENT

June/ July 2021

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;

Scientific Calculator.

*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 3 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 **four** health regulations governing workshop designs. (4 marks)
space openings - ventilation - Fire fighting equipment - electricity
- (b) Outline **four** essential services provided for a workshop. (6 marks)
market survey / Security - transport - Market survey
- (c) Explain **five** factors considered in the workshop design. (10 marks)
ventilation / openings - proximity - Market survey - Security - Local authority - transport
2. (a) Outline **four** categories of material wastage. (6 marks)
- (b) Explain **four** measures taken to minimize insecurity of materials on a site. (8 marks)
- (c) Explain **three** sources of capital finance for purchasing machinery. (6 marks)
Friends - NGOs - Fundraising - FEDs
3. (a) State **four** benefits of inventory columns in store keeping. (4 marks)
- (b) Outline **four** methods of motivating employees. (6 marks)
certificates of merit - promotion - APPRIATION
- (c) Explain **five** advantages of trade unions in work environment. (10 marks)
4. (a) State **five** roles of each of the following parties in occupational health and safety:
- (i) employees;
- (ii) employers. (10 marks)
- (b) Explain **two** types of maintenance for equipment. (4 marks)
corrective - planned
- (c) Explain **three** reasons for providing preliminary items on a construction site. (6 marks)
Health - communication - Security - harding
5. (a) State **four** reasons for maintaining equipment. (4 marks)
to avoid more breakage
- (b) (i) Explain the term 'serial tendering'.
- (ii) State **four** advantages of b(i) above. (6 marks)
- (c) Explain **five** considerations when designing a site layout for a workshop construction. (10 marks)
6. (a) State **six** roles of a clerk of works in a construction project. (6 marks)
- (b) Differentiate between the following types of contracts:
- (i) labour only and target cost;
- (ii) cost reimbursement and package deal. (8 marks)

(c) Explain three systems of filing.

(6 marks)

7. (a) State six reasons for carrying out a site investigation.

(6 marks)

(b) Table 1 shows the activities and durations of a construction project.

(i) Draw a network diagram and show the critical path.

(ii) Using analysis table determine the earliest and latest times.

(14 marks)

Table 1

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

8. (a) Outline four reasons for maintaining discipline of workers in a work place.

(6 marks)

(b) Outline four reasons for conducting site meetings.

(6 marks)

(c) Outline four types of taxation in Kenya.

(8 marks)

- Stationary deducted (pay as you earn)
- Pass information
- Allocation of work settle disputes
- National social Security fund
- local govt service charge (L.G.S.C.)

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