

1501/202 1508/202

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1503/202

**WORKSHOP ORGANIZATION
AND MANAGEMENT**

Oct./ Nov. 2021

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN MECHANICAL ENGINEERING

(PRODUCTION OPTION)

(PLANT OPTION)

(WELDING AND FABRICATION OPTION)

CRAFT CERTIFICATE IN AUTOMOTIVE ENGINEERING

CRAFT CERTIFICATE IN CONSTRUCTION PLANT ENGINEERING

MODULE II

WORKSHOP ORGANIZATION AND MANAGEMENT

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet;

Non-programmable scientific calculator.

Answer FIVE of the following EIGHT questions.

Maximum marks for each part of a question are as indicated.

All questions carry equal marks.

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.

2. (a) List **four** functions of management. (4 marks)
- (b) State **four** principles of management proposed by Fredrick Winslow Taylor. (4 marks)
- (c) Explain **three** contributions advanced by Chris Argyris to modern management. (6 marks)
- (d) Explain **three** obligations of an industrial organization to their customers. (6 marks)
2. (a) State **four** limitations of job production method. (4 marks)
- (b) Explain **four** challenges that managers face when scheduling production activities. (8 marks)
- (c) Explain **four** ways through which productivity of a production plant can be improved. (8 marks)
3. (a) Explain **two** challenges experienced during workshop organization process. (4 marks)
- (b) Describe the **three** stages of the micro-motion techniques of method study. (6 marks)
- (c) Table I, shows a machine operation which involves four elements, each of five cycles.

Table I

Cycle Element	1	2	3	4	5
1	3.5	3.1	3.2	3.4	3.5
2	7.2	7.0	7.1	6.9	6.9
3	3.3	3.3	3.1	3.1	3.2
4	3.4	3.1	3.8	4.0	3.3

Additional information:

- Element 2 is a machine element;
- Performance rating is 120;
- Personal allowance is 30 minutes in a shift of 8 hours;
- Fatigue allowance is 15%;
- Contingency allowance is 2%.

Calculate the:

- (i) average time for each element;
- (ii) standard time.

(10 marks)

4. (a) Explain **three** reasons for involving employees in quality control management. (6 marks)
- (b) Describe **three** limitations of centralized inspection. (6 marks)
- (c) Explain **four** objectives of conducting quality control inspection in a production plant. (8 marks)
5. (a) Outline **four** principles of stores layout. (4 marks)
- (b) Explain each of the following types of tenders:
- (i) open tendering;
- (ii) selective tendering;
- (iii) negotiated tendering. (6 marks)
- (c) Table II shows data obtained from records of XYZ company for manufacture of a product.

Table II

Item	Cost (Kshs)
Materials	8,500
Transportation	6,000
Components	2,700
Electricity	7,000
Hire of equipment	11,000

Additional information:

- Administrative and selling costs = 10% of direct materials costs;
- Profit is 25% of total cost;
- Labour cost Kshs.20/= per hour;
- Hours worked 200.

Calculate the:

- (i) Total cost of production;
- (ii) Selling price

(10 marks)

7. (a) Explain **three** challenges associated with direct distribution of goods to customers. (6 marks)
- (b) Highlight **six** objectives of trade promotions in marketing. (6 marks)
- (c) Describe **four** social factors that influence consumer behaviour. (8 marks)
8. (a) State **four** benefits of using both retainer and commission remuneration system. (4 marks)
- (b) Explain **three** ways through which an employer may terminate an employment contract. (6 marks)
- (c) Explain **five** documents required during company registration. (10 marks)
9. (a) Distinguish between vicarious liability and strict liability. (4 marks)
- (b) Explain each of the following torts:
- (i) assault;
- (ii) defamation;
- (iii) trespass. (6 marks)
- (c) Explain the following elements of factories Act:
- (i) cleanliness;
- (ii) overcrowding: (4 marks)
- (d) Explain **three** challenges that trade union leaders encounter in the process of resolving industrial disputes. (6 marks)

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