

1501/202 1508/202

1503/202

**WORKSHOP ORGANIZATION AND
MANAGEMENT**

Oct./Nov. 2016

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**CRAFT CERTIFICATE IN AUTOMOTIVE ENGINEERING
CRAFT CERTIFICATE IN MECHANICAL ENGINEERING
CRAFT CERTIFICATE IN WELDING AND FABRICATION**

MODULE II

WORKSHOP ORGANIZATION AND MANAGEMENT

3 hours

INSTRUCTIONS TO CANDIDATES

Answer FIVE out of the following EIGHT questions in the answer booklet provided.

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.**

1. (a) Highlight **three** key activities involved in the following functions of management:
- (i) controlling;
 - (ii) staffing;
 - (iii) planning. (9 marks)

(b) Henri Fayol's contribution to management was to establish the principles of management commonly practiced in organizations. Explain **four** of these principles. (6 marks)

(c) Industries are under obligation to attain social goals of the society within which they are located. Identify **five** ways in which they can achieve this obligation. (5 marks)

Handwritten notes:
 ✓ Promote employment
 ✓ Improving living standards
 ✓ Enhancing infrastructure

2. (a) Outline the procedure for method study. (6 marks)

Handwritten notes:
 ✓ Select work to be examined
 ✓ Examine
 ✓ Select, record, rearrange

(b) Highlight **four** applications of work measurement data in a manufacturing industry. (4 marks)

Handwritten notes:
 ✓ Graded Engineering contracts
 ✓ Refining
 ✓ Sugar industries
 ✓ Determine quality etc
 ✓ correct time
 ✓ Average

(c) Explain **four** principles of plant layout. (8 marks)

Handwritten notes:
 ✓ Determine spacing
 ✓ Availability of tools
 ✓ Access
 ✓ Functionality
 ✓ Durability

(d) State **four** types of allowances provided for in work study. (2 marks)

Handwritten notes:
 ✓ Food
 ✓ House

3. (a) Explain **four** reasons for carrying out inspection during production in a manufacturing industry. (8 marks)

Handwritten notes:
 ✓ Detect defects
 ✓ Prevent production of defective products
 ✓ Inform workers
 ✓ Incentive to workers

(b) (i) Differentiate between in-process inspection and central inspection.

(ii) Highlight **four** advantages of central inspection over floor inspection. (8 marks)

Handwritten notes:
 ✓ Inspected immediately after a task has been given out
 ✓ Prevent production of defective products

(c) Explain the following principles of quality control: (4 marks)

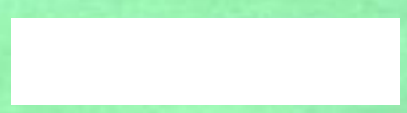
(i) customer focus; - Quality of products attract the customer (customer)

(ii) continuous improvement. - After control of materials & of methods their will be continuous order improvement. (4 marks)

4. (a) State **five** functions of the purchasing department in an organization. (5 marks)

Handwritten notes:
 - Purchase
 - Give orders

(b) The information below was extracted from the books of a light manufacturing industry for a given month:



Item	Cost (Ksh)
Rent	100,000
✓ Cost of raw materials <i>Direct</i>	250,000
✓ Salaries for production workers <i>Prime</i>	120,000
✓ Support staff salaries <i>Prime</i>	40,000
✓ Cost of designs and drawings <i>Overhead</i>	10,000
✓ Depreciation of machinery <i>Overhead</i>	10,000
✓ Transport for raw materials <i>Overhead</i>	50,000
Insurance <i>Overhead</i>	5,000
Selling and distribution costs <i>Overhead</i>	12,000
Stationery and office expenses <i>Overhead</i>	4,000

- identify the prime costs and production overheads;
- calculate the total prime costs and the total overhead costs;
- if 20,000 units were produced during this month, calculate the unit cost of production. (15 marks)

- 5.
- Explain **four** functions of the marketing department in a manufacturing industry. (8 marks)
 - Explain **three** objectives of advertising in a company. (6 marks)
 - Describe **three** situations that may compel a company to undertake market research. (6 marks)

- 6*
- Differentiate between wages and salaries.
 - Outline **four** guidelines followed by companies when determining wages and salaries. (8 marks)

- Explain the following categories of general defences under the law of tort:
 - private defence;
 - inevitable accident;
 - act of God. (6 marks)
- Highlight **three** circumstances under which a court may order the dissolution of a partnership business. (6 marks)

Handwritten calculations:
 250,000
 + 100,000

 350,000
 + 120,000
 + 40,000
 + 10,000
 + 10,000
 + 50,000
 + 5,000
 + 12,000
 + 4,000

 641,000

Handwritten calculations:
 120,000
 + 40,000

 160,000

Handwritten calculations:
 250,000
 + 160,000

 410,000

7. (a) Outline four objectives of production planning and control. (4 marks)
- (b) Explain the following activities of production planning and control:
- (i) routing; -
 - (ii) estimating; - *is estimating of how long a job will take if machine is given a work order.*
 - (iii) dispatching. - *is delivering the job ahead in production.* (6 marks)
- (c) Highlight four limitations of a mass production system. (4 marks)
- (d) (i) Define productivity. *Marketing of goods, sales, hence capacity - wastage materials*
- (ii) Explain two ways of increasing productivity in a manufacturing organization. *ii) Marketing Demand.* (6 marks)
8. (a) (i) Explain the term 'production control'.
- (ii) Highlight four activities involved in production control. (6 marks)
- (b) List four symptoms of a poorly planned plant layout. (4 marks)
- (c) Distinguish between inspection based on 'variables' and inspection based on 'attributes' in quality control. Give one example in each case. (4 marks)
- (d) (i) Differentiate between open and closed tenders.
- (ii) State two advantages of tendering over single-sourcing of materials. (6 marks)

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