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**INDUSTRIAL ORGANIZATION
AND MANAGEMENT**

June/July 2018

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN MECHANICAL ENGINEERING
(PRODUCTION OPTION)**

(PLANT OPTION)

DIPLOMA IN AUTOMOTIVE ENGINEERING

DIPLOMA IN WELDING AND FABRICATION

DIPLOMA IN CONSTRUCTION PLANT ENGINEERING

MODULE II

INDUSTRIAL 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 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.**

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- (a) Explain the following terms as used in management:
- (i) span of control: *the number of people or subordinates who report to a manager* (5 marks)
 - (ii) departmentation: *the process of dividing up the department into smaller units to do the work effectively* (5 marks)
 - (iii) informal organization: *the organization that exists in an organization which is not formally defined by the organization chart* (5 marks)
- (b) Explain four features of land as a factor of production. (8 marks)
- (c) Outline three characteristics of each of the following types of production:
- (i) job production: *production of a single unit or a small number of units of a product to meet a specific need* (5 marks)
 - (ii) batch production: *production of a number of identical units of a product in a group or lot* (5 marks)

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- (d) (i) Explain the term 'management by objectives' (MBO). (5 marks)
- (ii) Outline five limitations of management by objectives. (7 marks)
- (e) Outline five roles of the Public Procurement and Disposal Act in an organization. (5 marks)

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- (c) Explain four factors that determine the efficiency of labor in an organization. (8 marks)
- (d) (i) Explain the term 'delegation' as used in management. (5 marks)
- (ii) Outline four reasons which make delegation of tasks necessary in an organization. (5 marks)
- (e) Explain four ways in which managers may apply the Herzberg's two factor theory to improve performance of employees in an organization. (8 marks)
- (c) (i) A company uses 50,000 units of a material per annum which cost Sh. 1,500 each. The ordering and handling costs are Sh. 19,000 per order and carrying costs of 15% per annum. Calculate the economic order quantity. (5 marks)
- (ii) Outline three factors that determine the re-order level of stock in an organization. (6 marks)

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- (a) Distinguish between Gross National Product and Gross Domestic Product. (4 marks)
- (b) (i) With the aid of a diagram, explain the term 'break even point'. (5 marks)
- (ii) Outline four assumptions of break even analysis. (8 marks)

(c) Explain the following terms as used in production:

(i) production control;

(ii) follow up;

(iii) production schedule;

(iv) prototype.

(8 marks)

(a) Outline four features of open office layout.

(4 marks)

(b) (i) Explain the term 'method study'.

(ii) Outline four objectives of method study.

(6 marks)

(c) Explain five reasons that may make it necessary for an organization to recruit staff.

(10 marks)

(a) Outline four advantages of using computers in an office.

(4 marks)

(b) Explain four external sources of labour available to an organization during recruitment.

(8 marks)

(c) (i) Waza Ltd. manufactures pipes and supplies manufacturing costs to production at a budgeted indirect cost rate of Sh 12 per direct labour. The following data relates to the company as at June 2018:

	Shs
Direct materials	300,000
Direct labour (cost hours)	154,000
Indirect labour	21,000
Plant facility (rent)	10,000
Depreciation on plant, machinery and equipment	20,000
Other indirect manufacturing costs	22,000
Sales commissions	40,000
Administrative expenses	40,000

Calculate the:

(I) amount of manufacturing overhead costs incurred in June 2018;

(II) amount of manufacturing overhead allocated to all the jobs in June 2018.

(ii) Explain two guidelines that may be followed when determining the cost of a project.

(8 marks)

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8

- (a) Outline four differences between preventive and breakdown types of maintenance. (8 marks)
- (b) (i) Table 1 shows time in minutes for a job element for which the analyst gave a performance rating of 110%.

Table 1

Observations (n)	1	2	3	4	5	6	7	8	9
Time in minutes	1.10	1.12	1.15	1.14	1.15	1.16	1.14	1.14	1.17

Calculate the standard time for this operation given:

- (i) an allowance of 24% of job time;
- (ii) an allowance of 22% of a work day.
- (b) Outline two limitations of time study technique in production. (12 marks)

8. (a) With the aid diagrams, explain the following:

- (i) movement along the demand curve;
- (ii) shift in the demand curve. (6 marks)

(b) Explain three differences between LIFO and FIFO in relation to the value of material in stock. (6 marks)

(c) Explain four methods that may be used to resolve an industrial dispute in an organization. (8 marks)

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