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2503/201

**INDUSTRIAL ORGANIZATION  
AND MANAGEMENT**

**Oct./Nov. 2017**

**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.**



- 10
1. <sup>up. Policy</sup> <sup>SI nature of management</sup>
- (a) Explain five factors that may influence the structure of an organization. (10 marks)
- (b) Outline five advantages of informal organizations. (5 marks)
- Easy management  
- Easy implementation of policies
- (c) Describe five advantages of Management by Objectives (MBO). (5 marks)
- 2
- (a) Explain four methods used in quality control in production. (8 marks)
- (b) Outline six advantages of an open office layout. (6 marks)
- Early supervision of workers - Ease of communication  
- Initial cost is not high - Enhance employee interaction - Economy on the go - flight
- (c) Outline six characteristics of a good filing system. (6 marks)
- Tidiness - Secure - Simplicity  
- Easy of retrieval - Elastic - Compactability
3. (a) Explain three methods that may be used to appraise employees of an organization. (6 marks)
- (b) Table 1 shows the demand and supply schedule for coffee in a market for the month of February 2015.

Table 1

Price (Ksh)	Demand (kg)	Supply (kg)
80	10,000	30,000
60	12,000	25,000
40	14,000	20,000
35	15,000	17,500
30	16,000	15,000
25	18,000	12,500
20	20,000	10,000

- (i) draw the demand and supply curve on the same axis.
- (ii) determine the equilibrium price and quantity from the graph. (10 marks)
- (c) Explain the following documents as used in production planning and control:
- (i) internal delivery note;
- (ii) progress note. (4 marks)

- 4.
- (a) Explain four advantages of sourcing employees from within an organization. (8 marks)
- ~~face-to-face interviews~~ - Saves time and money - Improves employee morale  
- Dedicated staff - Good relationship
- (b) Explain four benefits that accrue to an organization from an efficient purchasing department. (8 marks)
- Maximum profitability - Meeting market demand  
- Continuous production - provision of right quantity and the right time

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(c) Distinguish between Gross Domestic Product and Gross National Product. (4 marks)

5. (a) Highlight **six** benefits of work study in an organization. (6 marks)

- Increased productivity
- maximum productivity
- Full utilization of organizational resources
- It saves time

(b) Explain the following work study aids in an organization: (6 marks)

- (i) Micromotion study;
- (ii) Memomotion study;
- (iii) Flow diagram.

(c) Explain **four** types of preventive maintenance. (8 marks)







- Lubrication
- Change of oil & filters
- Change of parts and parts

6. (a) Explain the following elements of cost: (8 marks)

- (i) material costs;
- (ii) direct expenses;
- (iii) labour costs;
- (iv) indirect costs.

(b) Table 2 shows symbols of operation as used in work study. Fill in the blank spaces with the appropriate information. (6 marks)

Table 2

Symbol No.	Symbol	Description	Purpose
1		<u>Operator</u>	Showing technique in figure
2		<u>Transport</u>	Showing order to follow
3		---	---
4		<u>Delay</u>	Indicates delay in an activity
5		<u>Storage</u>	Indicates storage of a flow
6		---	---

(c) Outline **six** factors that determine the price of a product. (6 marks)

- Price is related to taxation on the product or related
- Economy
- Demand & supply



7. (a) Outline six factors that may render a machine obsolete. (6 marks)  
 1. Technology 2. Wear & Tear 3. Change in production line  
 4. Fatigue 5. Breakage 6.
- (b) A manufacturer supplies his customers with 1,200 units of a product per year. Inventory carrying cost amounts to Ksh 1.50 per unit per year. The cost set up per run is Ksh 20.00. Find:
- economic order quantity;
  - average number of orders per year;
  - optimum number of orders per year;
  - optimum period of supply per optimum order.
- (8 marks)
- (c) Explain three factors of production. (6 marks)  
 - Land - Capital - Labour
8. (a) Explain four circumstances under which delegation may be appropriate in an organization. (8 marks)
- (b) Figure 1 shows a break-even chart. Label the areas represented by the Roman numbers. (7 marks)

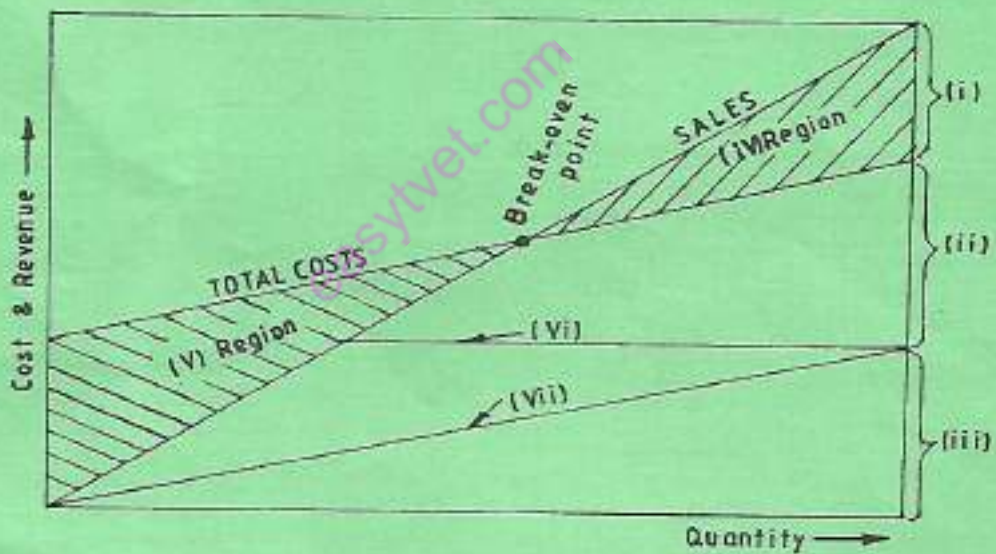


Fig. 1

- (c) Outline five features of a bureaucratic organization. (5 marks)

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