

2506/301
2507/301
INDUSTRIAL ORGANISATION
AND MANAGEMENT
Oct./Nov. 2023
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
DIPLOMA IN AERONAUTICAL ENGINEERING
(AIRFRAMES AND ENGINES OPTION)
(AVIONICS OPTION)
MODULE III
INDUSTRIAL ORGANIZATION AND MANAGEMENT

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination

Non-programmable electronic calculator

Answer booklet.

*This paper consists of **Eight** questions.*

*Answer any **FIVE** questions in the answer booklet provided.*

All questions carry equal marks.

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

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) Explain **four** uses of break-even analysis in an organization. (6 marks)
- (b) (i) Describe 'stock control'.
(ii) Outline **four** objectives of stock control in an industrial organization. (6 marks)
- (c) Explain **four** benefits of standardization of products to an organization. (8 marks)
2. (a) Explain **three** limitations of line and staff organization. (6 marks)
- (b) Outline the steps involved in the management decision making process. (7 marks)
- (c) A job was timed for 60 cycles and had an average of 2.8 minutes per unit. Performance rating was 110% and relaxation allowance was 14%. Determine the:
(i) observed time;
(ii) basic time;
(iii) standard time. (7 marks)
3. (a) State **four** costs that are associated with plant maintenance in an organization. (4 marks)
- (b) Explain **four** limitations of an open plan office. (8 marks)
- (c) Highlight **four** merits of the concept of Management by Objectives (MBO). (4 marks)
- (d) Outline **four** functions of the purchasing department in an organization. (4 marks)
4. (a) State **four** objectives of carrying out manpower planning in an organization. (4 marks)
- (b) Explain **four** requirements of an effective preventive maintenance programme for an organisation. (8 marks)
- (c) Outline **four** external sources of staff recruitment to a organization. (4 marks)
- (d) Highlight **four** factors that influence the demand for labour in a country. (4 marks)
5. (a) Outline the steps involved in 'method study'. (7 marks)
- (b) A company has a yearly demand of 28,000 units for material Q. The cost price per unit is Kshs.4,000 and the stock holding cost is 25% per annum of the stock value. Delivery cost per batch is Ksh 500. Determine the;
(i) economic order quantity (EOQ);
(ii) total number of orders made quarterly. (6 marks)

- (c) (i) Define 'performance appraisal'.
(ii) Explain **three** methods of conducting staff appraisal in an organization. (7 marks)

6. (a) Explain each of the following terms as used in economics:

- (i) opportunity cost;
(ii) scarcity;
(iii) utility. (6 marks)

(b) The following information was extracted from the records of XYZ Company Ltd for the month of December 2020.

	Kshs
Wages of indirect factory workers	200,000
Postages and telephone	35,000
Office salaries	650,000
New material purchased	1,200,000
Printing and stationery	175,000
Material in hand (1 st December 2020)	850,000
Wages of direct workers	700,000
Material in hand (1st January 2021)	760,000

Determine the:

- (i) direct material cost;
(ii) labour cost;
(iii) administrative overheads. (6 marks)

(c) Explain **four** reasons that make the follow-up stage important in production planning and control. (8 marks)

7. (a) Explain each of the following documents as used in plant maintenance:

- (i) work orders;
(ii) job card. (4 marks)

(b) Explain **four** benefits of using computers in an office. (8 marks)

(c) Explain **four** uses of national income statistics to a country. (8 marks)

8. (a) (i) Explain 'batch production'.
(ii) Describe **three** features of batch production. (8 marks)
- (b) Explain each of the following staff training methods:
(i) vestibule;
(ii) orientation;;
(iii) apprentice. (6 marks)
- (d) Highlight **six** principles of the bureaucratic theory of management. (6 marks)

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