

2506/301

2507/301

INDUSTRIAL ORGANISATION  
AND MANAGEMENT

June/July 2018

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN AERONAUTICAL ENGINEERING  
(AIR FRAMES AND ENGINES OPTION)  
(AVIONICS OPTION)

MODULE III

INDUSTRIAL ORGANISATION AND MANAGEMENT

3 hours

### INSTRUCTIONS TO CANDIDATES

*You should have a non programmable electronic calculator for this examination.*

*Answer any FIVE of the EIGHT 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 the following types of authority as defined in the bureaucratic theory of management:
- (i) traditional authority;
  - (ii) charismatic authority;
  - (iii) legal authority.
- (6 marks)
- (b) State:
- (i) **four** assumptions made by F. W. Taylor about workers in his scientific theory of management.
  - (ii) **four** criticisms of the scientific management theory.
- (8 marks)
- (c) Outline **four** challenges associated with application of the Operations Research (OR) in managerial decision making in organisations today. (6 marks)
2. (a) State **four** features of an informal organisation. (4 marks)
- (b) (i) Distinguish between 'tall' and 'flat' organisation structures.
- (ii) Highlight **three** variables that determine the design of an organisational structure. (6 marks)
- (c) (i) Some subordinates shy away from embracing delegation. State **four** reasons for this behaviour.
- (ii) Outline **three** benefits of delegation to an organisation. (10 marks)
3. (a) State **four** disadvantages of a decentralised maintenance system. (4 marks)
- (b) Highlight **six** requirements of an effective maintenance system. (6 marks)
- (c) List **five** recording techniques used in work study. (5 marks)
- (d) Developing a new working method involves critical analysis and examination of the job under study. Highlight **five** aspects that are studied with respect to method study. (5 marks)

4. (a) State **four** functions of the purchasing department of an organisation. (4 marks)
- (b) Outline the procedure followed by organisations when purchasing materials. (6 marks)
- (c) State **five** advantages of perpetual stock taking over annual stock taking. (5 marks)
- (d) Illustrate the features of a typical bin card. (5 marks)
5. (a) Explain **three** economic factors that may affect production planning in industrial organisations. (6 marks)
- (b) Outline **four** control activities carried out during the manufacturing process of a product. (4 marks)
- (c) Explain the following terms as used in production planning and control:
- (i) Loading;
  - (ii) Scheduling;
  - (iii) Mass production.
- (6 marks)
- (d) State **four** advantages of production planning and control to an industrial organisation. (4 marks)
6. (a) Outline **four** reasons that justify the need for new staff recruitment. (4 marks)
- (b) Describe the following methods of training employees:
- (i) Role playing;
  - (ii) Vestibule;
  - (iii) Simulation.
- (6 marks)
- (c) List **five** factors considered by human resource managers when developing wage guidelines. (5 marks)
- (d) Outline **five** possible contents of an employee induction training programme. (5 marks)

7. (a) Explain the following concepts in economics:
- (i) marginal utility;
  - (ii) inflation;
  - (iii) balance of payments.
- (6 marks)
- (b) (i) In a given market, a fall in price of a product from Ksh 20 to Ksh 15 results in an increase from 30,000 units to 50,000 units. Determine the elasticity of demand.
- (ii) Explain the importance of elasticity of demand to consumers of a product.
- (5 marks)
- (c) State **three** characteristics of land as a factor of production. (3 marks)
- (d) Outline **three** government policies that may enhance wealth creation in a country. (6 marks)
8. (a) Outline **four** factors considered when planning office layout. (4 marks)
- (b) Differentiate between 'horizontal' and 'vertical' filing systems. (4 marks)
- (c) Distinguish between 'fixed' and 'variable' costs, giving **two** examples in each case. (6 marks)
- (d) A factory manufactures 300 sprockets per month. The variable cost per sprocket is Ksh 600 while the fixed costs are Ksh 10,000. If the selling price of each sprocket is Ksh 800, calculate the:
- (i) break-even sales volume in units.
  - (ii) value of sales in Ksh at break-even point.
  - (iii) profit if the factory is operating at 80% capacity.
- (6 marks)

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