

2207/305

INDUSTRIAL ORGANISATION AND MANAGEMENT

Oct./Nov. 2008

Time: 3 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN AERONAUTICAL ENGINEERING AVIONICS
(COMMUNICATION AND NAVIGATION OPTION)**

INDUSTRIAL ORGANISATION AND MANAGEMENT

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet

Electronic calculator

*Answer any **FIVE** of the following **EIGHT** questions.*

All questions carry equal marks.

This paper consists of 5 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and no questions are missing.

1. (a) State any **three** features of a budget. (3 marks)
- (b) Explain the following types of budgets:
- (i) production;
 - (ii) capital expenditure;
 - (iii) cash. (9 marks)
- (c) Explain the following terms as used in financial management.
- (i) factory overheads;
 - (ii) cost control;
 - (iii) depreciation;
 - (iv) funds flow statement. (8 marks)
2. (a) State **four** material handling equipment used in industries. (2 marks)
- (b) Explain **three** factors considered when selecting material handling equipment. (6 marks)
- (c) Outline **three** activities of stock control. (4 marks)
- (d) Table 1 shows the receipts and issues of WAKAWAKA Limited for the month of September 2005.

Table 1

Date	Receipts (Units)	Unit Cost (Ksh)	Issues (Units)	Bin Balance (Units)
4.9.05	0	60	0	b/f 1500
8.9.05	800	65	0	2300
14.9.05	1200	70	2000	?
25.9.05	3500	80	2500	?
28.9.05	2000	90	2000	?
30.9.05	0	-	1500	?

Determine:

- (i) the bin balances from 14th to 30th September 2005;
 - (ii) the value of stock issued using the First-In-First-Out (FIFO) method. (8 marks)
3. (a) Explain the elements of the marketing mix. (6 marks)
- (b) (i) State any **two** factors considered when selecting advertising media.
- (ii) Explain any **three** objectives of advertising in a company. (8 marks)

(c) Describe the following sales promotion methods and for each, state one possible objective:

- (i) price-offs;
- (ii) free samples;
- (iii) consumer contests. (6 marks)

4. (a) State **four** reasons why a job may be selected for work study. (4 marks)

(b) Describe the activities represented by the following process chart symbols:

- (i) \longrightarrow Transport
- (ii) \bigcirc operation
- (iii) \mathbf{D} Delay
- (iv) ∇ storage (6 marks)

(c) Explain any **five** benefits of work study in industrial organisations. (5 marks)

(d) A machine operator performs a task in 40 minutes when working 30% more than a qualified standard operator. The following allowances are given:

Interference	2.5%
Relaxation	8%
Unoccupied time	2%

Determine:

- (i) basic time;
- (ii) standard time. (5 marks)

5. (a) State any **four** factors considered when selecting a factory location. (4 marks)

(b) Define the following types of production;

- (i) batch;
- (ii) flow. (4 marks)

(c) Table 2 shows data for a small manufacturing project.

Table 2

Activity	Preceding Activity	Duration in Weeks
A	-	4
B	A	3
C	A	6
D	A	8
E	B	5
F	C	1
G	C	3
H	C,D	3
I	E,F	8
J	G,H	3
K	I,J	5

- (i) Draw the project network.
- (ii) Determine the critical path and its duration.
- (iii) Determine the total float for the non-critical activities. (12 marks)

6. (a) Explain "organising" as a function of management. (2 marks)
- (b) Explain any **four** principles of management as developed by Henri Fayol. (8 marks)
- (c) Draw a typical product-based organisation structure. (6 marks)
- (d) Although delegation is so crucial to successful achievement of organisational objectives, some managers are reluctant to delegate. Highlight **four** reasons for this tendency. (4 marks)

7. (a) Explain the following methods of employee training: (6 marks)
- (i) induction;
 - (ii) supervisory;
 - (iii) managerial.

- (b) (i) Define the term "leadership".
- (ii) Explain any **three** benefits of good leadership in an organisation. (8 marks)

- (c) (i) State **four** causes of indiscipline in an organisation.
(ii) Explain the meaning of "suspension" as a disciplinary measure. (6 marks)

8. (a) Outline any **four** objectives of inspection. (4 marks)

(b) Explain the following concepts of quality control:

- (i) acceptance sampling;
(ii) process variability;
(iii) quality standard. (6 marks)

(c) The management of a manufacturing company wants to know the quality level of studs produced during the last quarter of the current financial year. Inspection was done in 10 lots of 200 units each and the number of defectives are as shown in table 3.

Table 3

Lot Number	1	2	3	4	5	6	7	8	9	10
No. of defectives	20	15	18	17	25	30	22	12	13	16

- (i) Calculate the mean fraction defectives.
(ii) Determine the control limits at both the warning and action levels.
(iii) Draw the frequency distribution curve. (10 marks)