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**INDUSTRIAL ORGANISATION AND MANAGEMENT**

**Oct./Nov. 2008**

**Time: 3 hours**

**THE KENYA NATIONAL EXAMINATIONS COUNCIL**

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

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

**DIPLOMA IN AUTOMOTIVE ENGINEERING**

**DIPLOMA IN CONSTRUCTION PLANT ENGINEERING**

**DIPLOMA IN AGRICULTURAL ENGINEERING  
(FARM POWER AND MACHINERY OPTION)**

**DIPLOMA IN MECHANICAL ENGINEERING  
(FABRICATION TECHNOLOGY AND METALLURGY  
OPTION)**

**DIPLOMA IN AERONAUTICAL ENGINEERING  
(AIR FRAME AND ENGINES OPTION)**

**DIPLOMA IN MECHANICAL ENGINEERING  
(MATERIALS TECHNOLOGY AND METALLURGY  
OPTION)**

**INDUSTRIAL ORGANISATION AND MANAGEMENT**

**3 hours**

**INSTRUCTIONS TO CANDIDATES**

*You should have the following for this examination:*

*Answer book*

*Mathematical tables/calculator.*

*Answer any FIVE of the following EIGHT questions.*

*All questions carry equal marks.*

*Maximum marks for each part of a question are indicated.*

**This paper consists of 4 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) Describe the following styles of management:
- (i) human relations;
  - (ii) contingency approach;
- (4 marks)
- (b) Explain any **three** functions of management. (6 marks)
- (c) Explain the process of management by objectives (MBO) as applied in an organisation. (10 marks)
2. (a) State **four** bases of departmentation in an industrial organisation. (4 marks)
- (b) (i) Explain the term "span of control",
- (ii) Explain **four** determinants of span of control; (8 marks)
- (c) (i) With the aid of a diagram, illustrate the matrix type of organisation structure;
- (ii) State **two** demerits of this type of structure. (8 marks)
3. (a) (i) Highlight any **three** reasons for conducting oral interviews during the process of employee selection;
- (ii) State **four** reasons why organisations should conduct exit interviews; (7 marks)
- (b) Outline the systematic procedure for effective training and development of employees in an organisation. (5 marks)
- (c) Explain **four** indicators of the level of morale in an organisation. (8 marks)
4. (a) (i) State **four** objectives of store keeping;
- (ii) Explain the procedure of ordering stores. (10 marks)
- (b) (i) Distinguish between stores ledger and Bin Card;
- (ii) List **three** classifications of stock. (6 marks)
- (c) Describe **two** types of office layout. (4 marks)
5. (a) (i) Explain the term office automation;
- (ii) State **three** advantages of office automation, (5 marks)



- (b) The table below shows the demand and supply schedule of aluminium rivets in a given market for the month of June 2006.

Price per kg	Quantity demanded (kg)	Quantity supplied (kg)
180	300	620
160	350	600
140	410	570
120	450	530
100	490	480
80	530	430
60	570	370

- (i) draw the demand and supply curves;  
 (ii) determine the equilibrium price and quantity;  
 (iii) explain the effect of the government fixing the maximum price at ksh.120. (15 marks)
6. (a) State **four** benefits of planned maintenance. (4 marks)
- (b) Explain **four** requirements of an effective maintenance programme. (6 marks)
- (c) The following information relates to the planning activities of a small engineering project.

Activity	Description	Duration (weeks)
1 - 2	Writing project proposal	3
1 - 3	Preliminary design	6
2 - 5	Research data collection	10
3 - 4	Building proto type	13
4 - 7	Testing proto type	3
5 - 6	Writing project report	2
5 - 7	Presenting project report	1
6 - 7	Project commissioning	4

- (i) draw project network;  
 (ii) determine Critical path and project duration;  
 (iii) determine the total float for activity 2 - 5;  
 (iv) state the effect of starting activity 2 - 5 two weeks after its latest start time. (10 marks)



7. (a) Explain **three** types of production as applied to manufacturing industry. (9 marks)

(b) Explain the following functions of production planning and control.

- (i) dispatching;
  - (ii) scheduling;
  - (iii) routing.
- (6 marks)

- (c) (i) Define the term 'standardisation';
- (ii) State **three** advantages of standardisation to a manufacturer. (5 marks)

8. (a) (i) State **four** signs that may necessitate work study in an organization;

(ii) Explain **three** difficulties experienced when undertaking work study. (10 marks)

- (b) (i) Differentiate between job enlargement and job enrichment;
- (ii) Highlight **four** areas where work study is used to improve performance in an industrial organisation. (6 marks)

(c) Explain the following methods of work measurement:

- (i) activity sampling;
- (ii) predetermined motion time study (PMTS).

(4 marks)