

2903/305 2926/305

2906/305 3103

MANAGERIAL ACCOUNTING

November 2017

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN SUPPLY CHAIN MANAGEMENT

DIPLOMA IN BUSINESS MANAGEMENT

DIPLOMA IN HUMAN RESOURCE MANAGEMENT

MODULE III

BUSINESS EDUCATION SINGLE AND GROUP CERTIFICATE

STAGE III

MANAGERIAL ACCOUNTING

3 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of SEVEN questions.

Answer any FIVE questions in the answer booklet provided.

All questions carry equal marks.

Candidates should answer the questions in English.

This paper consists of 5 printed pages.

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

- (a) Explain **four** objectives of a budgetary control system in an organization. (8 marks)
- (b) Sketa Limited intends to invest Ksh 2,200,000 in either project A or project B. The following are the expected cash inflows from the projects.

Year	Project A (Ksh)	Project B (Ksh)
1	800,000	200,000
2	600,000	300,000
3	600,000	300,000
4	400,000	1,200,000
5	400,000	800,000
6	100,000	800,000

The company's cost of capital is 12% per annum.

- (i) Determine the Net Present Value (NPV) for each project. 12
- (ii) Based on the results in (i) above, advise the management on which project to invest in. (12 marks)

2. (a) Explain **five** differences between Managerial Accounting and Financial Accounting. (10 marks)
- (b) ABC Limited manufactures two products, X and Y. The following information relates to one unit of each of the two products:

	Product X	Product Y
Selling price (Ksh)	40	60
Direct material (units)	20	30
Direct labour (hours)	8	10

Variable overheads are absorbed at 50% of direct labour. Fixed overheads amount to Ksh 2,400. 4

The proposed sales mix are:

- (I) 200 units of X and 400 units of Y;
 (II) 300 units of X and 300 units of Y;
 (III) 400 units of X and 200 units of Y.
- (i) Prepare profit statement, based on marginal costing, for each sales mix.
 (ii) Based on the results in (i) above, advise the management on the sales mix to adopt. (10 marks)

3. (a) Explain the meaning of each of the following terms as used in Responsibility Accounting:

- (i) Revenue centre;
- (ii) Profit centre;
- (iii) Cost centre;
- (iv) Investment centre.

(8 marks)

(b) The following information has been extracted from the monthly accounts of Krop Limited for an output level of 10,000 units of a cost centre:

	Ksh
Direct labour	140,000
Direct material cost	100,000
Indirect labour	30,000
Depreciation	15,000
Repairs and maintenance	10,000

The expenditure items have been classified as follows:

Item of expenditure	Valuable cost/ unit (Ksh)	Total fixed costs (Ksh)
Direct labour	28	-
Direct material	20	-
Indirect labour	-	30,000
Depreciation	-	15,000
Repairs and maintenance	0.5	5,000

- (i) Using accounts analysis method, determine the equation that can be used to estimate total cost.
- (ii) Using the equation determined in (i) above, estimate the total cost that would be incurred in the production of 20,000 units.
- (iii) Explain **two** disadvantages of accounts analysis method. (12 marks)

4. (a) The following information relates to a product Q manufactured by a firm:

Number of units produced and sold per week - 10,000 ✓
 Selling price per unit - Ksh 40 ✓
 Variable cost per unit - Ksh 24 ✓
 Fixed costs - Ksh 64,000

Determine the:

- (i) profit/volume (P/V) ratio;
- (ii) break even point in units; ✓ $\frac{F}{P-V}$
- (iii) margin of safety.

(8 marks)

- (b) A firm has five jobs, each of which can be done by any of the five machines available. The following table shows the output in units for each assignment:

Job	Machines				
	A	B	C	D	E
1	60	74	80	56	80
2	80	48	54	42	72
3	80	64	66	60	70
4	50	76	80	72	72
5	58	124	82	82	78

Determine the:

- (i) optimal assignment;
 (ii) maximum output. (12 marks)

5. (a) A repair shop is operated by a single mechanic. An average of four customers per hour bring small appliances for repair. The mechanic inspects them for defects and may fix them immediately. This takes him an average of five minutes. Arrival of customers follows a Poisson distribution, while service time by the mechanic follows an Exponential distribution.

Determine the:

- (i) probability that the mechanic is idle;
 (ii) probability that there will be at least one customer in the shop;
 (iii) average number of customers in the system;
 (iv) average time a customer spends in the system. (10 marks)

- (b) Explain five similarities between a transportation problem and an assignment problem. (10 marks)

6. (a) A company is considering investing in one of three products A, B or C. The following are pay-offs associated with three products.

Products	Pay-offs conditional events			
	I	II	III	IV
A	9	5	-1	8
B	3	11	14	4
C	12	8	5	9

Using each of the following criteria, advise the management on the product to invest in:

- (i) Minimax-regret criterion;
 (ii) Laplace criterion. (8 marks)

- (b) A company has three depots; A, B and C. The company's products are transported to three destinations; X, Y and Z. The capacity of each depot and demand at each destination is as follows:

Depot	Capacity (units)
A	2,800
B	2,400
C	4,600

Destination	Demand (units)
X	1,600
Y	2,000
Z	6,200

The cost per unit of transporting the products from each depot to each destination is as follows:

Depot	Destination		
	X	Y	Z
A	14	12	4
B	6	10	18
C	2	16	8

- (i) Using the least cost method, advise the management on how much to transport from each depot to each destination in order to minimize costs.
 (ii) Determine the minimum total cost. 6 (12 marks)

7/ (a) Explain five limitations of Responsibility Accounting. (10 marks)

- (b) The management of Deto Limited has provided the following information for the next budget period:

	Units
Expected sales quantity	90,000
Expected opening stock of finished goods	10,000
Desired closing stock of finished goods	20,000

The production requires two types of labour; skilled and semi-skilled. Each unit of the final product requires 2 hours of skilled labour and one hour of semi-skilled labour. The company pays Ksh 1,500 per hour for skilled labour and Ksh 1,000 per hour for semi-skilled labour.

Prepare:

- (i) production budget;
 (ii) labour cost budget. 4 (10 marks)

THIS IS THE LAST PRINTED PAGE.