**TECHNICAL UNIVERSITY OF MOMBASA**

School of Business

Department of Management Science

**UNIVERSITY EXAMINATION FOR:**

DIPLOMA IN SUPPLY CHAIN MANAGEMENT

BAC 31102: MANAGEMENT ACCOUNTING

END OF SEMESTER EXAMINATION

**SERIES:** APRIL 2025

**TIME:**2HOURS

**DATE:** APRIL 2025

**Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of **FIVE** questions. Attemptquestion ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

**QUESTION ONE**

a} The total cost of making a new product in the factory is Kshs 2100 given below:

| | Kshs |
|---|---|
| Material | 1000 |
| Labour | 600 |
| Production overhead | 500 |

60% of production overhead is fixed. A foreign supplier has offered to supply this component at Kshs 1700.

Required:

Advise the management whether to make or buy from the foreign manufacturer.

7 marks

b] Mtopanga manufactures makes a single product which it sells at Kshs 10 per unit. Fixed costs are Kshs 48000 and the product has a contribution to sales ratio of 40%. Actual sales for the period was Kshs 140000.

Required:

i) Break-even point in sales value 3 marks

ii) Break-even point in units 3 marks

iii) Margin of safety in units 3 marks

c) Mla Leo ltd has some material which originally cost Kshs 45000. This is now a sunk cost. The material has a scrap value of Kshs 12500 but if reworked at a cost of Kshs 7500, it could be resold for Kshs 17500.

Required:
What would be the incremental effect of reworking and selling the material? 4 marks
d) Explain the following terms as used in Management accounting:
i) Sunk cost
ii) Relevant cost
iii) Fixed budget
iv) Flexible budget 10 marks

**QUESTION TWO**
a)A Company manufactures three products, Alif, Bei and Tei all of which pass the same finishing process.
Maximum demand in units for each product is 4500. The number of hours available in the finishing process is 6000.
Data relating to each product is as follows:

| Product | Alif | Bei | Tei |
|---|---|---|---|
| Selling price per unit Kshs | 30 | 36 | 41 |
| Variable costs per unit Kshs | 20 | 27 | 35 |
| Minutes in the finishing process per unit | 45 | 36 | 25 |

Required:
Determine the production plan that will maximize profits. 14 marks
b) List three advantages of a cash budget. 6 marks

**QUESTION THREE**
a) The total costs for two activity levels are given below:

| Output units | Total costs |
|---|---|
| 11500 | Kshs 102476 |
| 14000 | Kshs 113201 |

Required:
i) Using the high-low method analyse costs into fixed and variable components. 4marks
ii) Estimate the cost of production for 15000 units 2 marks
b) La pip'ip'a' papa has the following data:

| | UNITS | TOTAL COST Kshs |
|---|---|---|
| Jan | 10 | 25 |
| Feb | 15 | 34 |
| Mar | 20 | 40 |
| Apr | 17 | 36 |
| May | 13 | 30 |

Required:
Using regression analysis estimate the cost of producing 50 units for June. (14 marks)

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**QUESTION FOUR**
The following are the standards of one unit for a company that manufactures a single product:

| | |
|---|---|
| Standard quantity of raw materials to produce one unit | 12 kgs |
| Standard price per kg of raw materials | Kshs 9 |
| Standard labour hours to produce one unit | 10 hours |
| Standard labour rate per hour | Kshs 4 |

Actual production costs for one accounting period were:

| | |
|---|---|
| Material used | 3770 kgs |
| Material cost | Kshs 35815 |
| Hours worked | 2755 |

| | |
|---|---|
| Wages paid | Kshs 11571 |

The actual output was 290 units.

Required:

i. Material price variance.
ii. Material usage variance,
iii. Labour rate variance.
iv. Labour efficiency variance. 8 marks

b) Msichana wa Kwehu Ltd has excess capacity 20000 machine hours which is expected to be absorbed by the domestic market in a few years. The company has received inquiries from abroad. Omusajja has offered to buy 210000 units of product Nun at Kshs 0.60 per unit, Omuchala has offered to buy 300000 units of product Wau at Kshs 0.70 per unit. Msichana wa kwehu Ltd can only accept one of these offers. The estimated costs per unit for these products are:

| | Nun(kshs) | Wau(kshs) |
|---|---|---|
| Material | 0.25 | 0.35 |
| Direct labour | 0.10 | 0.12 |
| Factory overhead | 0.20 | 0.28 |

Factory overhead is applied on a machine hours basis at Kshs 5.60 per hour. 75 percent of factory overhead is fixed. Which order should the company accept?

12 marks).

**QUESTION FTVE**

In many instances NPV and IRR will give consistent rankings, but at times conflicts in rankings between the two will occur. Consider two mutually exclusive investment proposals, Sinni and shinni:

| | SINNI (kshs) | SHINNIkshs | 9%discounting |
|---|---|---|---|
| Year 0 | -35000 | -35000 | 0.000 |
| 1 | 20000 | 5000 | 0.917 |
| 2 | 15000 | 10000 | 0.842 |
| 3 | 10000 | 15000 | 0.772 |
| 4 | 5000 | 25000 | 0.708 |

Required: Indicate which is a better project you would choose under:

i) NPV 10 marks
ii) IRR 5 marks
iii) Is there any conflict between the two, if so, why does this conflict arise?
5 marks