TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING & FINANCE

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN ACCOUNTANCY 2

BAC 2202: MANAGEMENT ACCOUNTING

END OF SEMESTER EXAMINATION

SERIES: JULY, 2025

TIME: 2HOURS

DATE: DECEMBER, 2024

<u>Instructions to Candidates</u>

You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.
Do not write on the question paper.

Question One

a) The following data relates to Matupa Limited for the first six months of the year 2024.

Month	Units produced	Labour Cost (ksh.)
January	68,000	780,000
February	88,000	980,000
March	100,000	110,000
April	72,000	820,000
May	60,000	700,000
June	48,000	580,000

(i) Determine the cost function of the firm using the high-low method. (4 marks).

(ii) Assuming that the company is to produce 90,000 units, estimate the labour cost to be incurred. (4 marks)

(iii) Determine the number of units to be produced in the month of August 2023, if the company intends to spend Ksh 900,000 on labour cost. (6 marks)

b) Texas Products has developed a very powerful electronic calculator. Each calculator requires three small chips that cost sh.2.00 each and are purchased from an overseas supplier. Texas Products has prepared a production budget for the calculator by quarters for Year 2 and for the first quarter of Year 3, as follows:

	Year 2				Year 3
	First	Second	Third	Fourth	First
Budgeted productions, in calculators	60,000	90,000	150,000	100,000	80,000

The inventory of the chips at the end of a quarter must be equal to 20% of the following quarter's production needs. There will be 36,000 chips on hand to start the first quarter of Year 2.

Required:

Prepare direct materials budget for the chips, by quarter and in total, for Year 2 including the amounts in shillings of purchases for each quarter and for the year in total. **(8 marks)**

(c)The production department of the Company B has submitted the following forecast of units to be produced by quarter for the upcoming fiscal year:

	First	Second	Third	Fourth
Units to be produced	10,000	8,000	8,500	9,000

Each unit requires 0.6 direct labor-hours and at a cost of sh.15.00 per direct labor hour. The workforce can be adjusted each quarter for the expected production level

Required:

Prepare the company's direct labor budget for the next fiscal year. **(8 marks)**

Question Two

The following information has been extracted from the records of a company for the half year ended 31 March 2021. A product, Capital Q, goes through two processes, X and Y:

Details relating to Process X for the period:

Input units	5,000
Finished units transferred to Process Y	3,200
Closing WIP	840
Normal losses	10%

Normal losses have an estimated resale value of GH¢4 per unit.

Costs incurred during the period:	sh.
Direct materials	31,250
Direct labour	21,200
Overheads	17,325

Abnormal Losses and Closing WIP had the following degrees of completion at the end of the period:

Direct materials	100%
Direct labour	80%
Overheads	50%

Required:

Using the weighted average method:

a) Compute the cost per unit for each of the element of costs. (5 marks)

b) Compute the value of the complete units transferred to Process Y. (5 marks)

c) Compute the value of the closing WIP. (5 marks)

d) Prepare Process X Account for the period. (5 marks)

(Total: 20 marks)

Question Three

(b) You are a student who has been deployed in the stores department to review efficiency and stock controls. You have ascertained the following information about the organisation's main raw material:-

Minimum usage………. 100 units per day.
Maximum usage……… 800 units per day.
Average usage………… 400 units per day.
Total projected usage… 20,000 units per quarter.
Lead time……………... 4 - 8 days.
Cost per order………… sh.20.
Unit Cost……………… sh. 25.
Carrying cost…………. 6% of total materials cost per annum.

Requirement:

a) To assist with an efficiency review, calculate the following stock control ratios:

(i) Stock re-order level. (2 marks)
(ii) Minimum stockholding level. (3 marks)
(iii) Economic order quantity. (3 marks)
(iv) Maximum stockholding level. (2 marks)

Question Three

'The budgeting process is an important feature of effective management performance'.

Required:

(i) Outline and briefly explain five benefits of budgeting. (**5 Marks)**

(ii) Provide a brief overview of the budgeting process. (5 **Marks)**

b) The store-keeper of 2007chicken feed ltd. Made the following transactions during the month of October.

Date.

02.10. Purchase 400 bags at sh. 150 @.

08-10 Sold 300 bags at sh.180 @

10-10 Purchased 600 bags at sh.165 @

15-10 Sold 500 bags at sh.200 @

24-10 Purchased 700 bags at sh.170 @

26-10 Purchased 500 bags at sh. 180 @

27-10 S0ld 6oo bags at sh.200 @

30-10 Sold 700 bags at sh.235 @.

There was an opening stock of 200 bags valued at sh.140@

Required: Trading Account base on;

i) FIFO **(5 marks)** (ii) LIFO **(5 marks)**

Question Four

a) Magawa Ltd operates a standard variables costing system and manufactures a single product called "Magic Touch". The following quantities, costs and prices data have been extracted for the period just ended March 31, 2021 in respect of Magic Touch:

Standard cost card:		sh.
Direct materials	15g at sh.10/g	150
Direct labour	8 hours at sh.6/hour	48
Variable overheads	8 hours at sh.4/hour	32
Standard contribution		25
Standard selling price per unit		255
Budgeted production units		1,500

Actual results for the period ended March 31, 2021 were as follows:

Production and sales units	1,650
Selling price per unit	sh. 278

Direct materials used	23,760g
Direct materials costs	sh. 308,880
Direct labour hours worked	10,725
Direct labour costs	sh. 85,800
Variable overheads	sh. 68,000

Required:

Compute the following variances for Magawa Ltd for the period ended March 31, 2021:

i) Direct materials price variance. (1 mark)

ii) Direct materials usage variance. (1 mark)

iii) Direct labour rate variance. (1 mark)

iv) State ONE (1) possible reason for the material price variance calculated. (1 mark)

v) State ONE (1) possible reason for the labour rate variance calculated. (1 mark

The fixed overheads per year are Ksh 1,000,000. The company expects to manufacture and sell 24,000 units in the forthcoming year.

Calculate the:

(ii) break even point in units- (2 marks)

(iii) break even point in shillingx; (2 marks)

(iv) margin of safety in units; (2 marks)

(v) current profit or loss. (2 marks)

The company is planning to spend Ksh 200,000 on advertising and reduce the selling price by 5%. The expected units to be sold would increase by 6,000 units. Advise management on whether to continue with the plan or not. (4 marks)

Question Five

A company manufactures 3 products a, b and c, which sells sh. 14, sh.15 and sh. 22 per unit respectively. These prices are constant and independent of the market state they are addressed to, and it is also supposed that any produced quantity can be sold. For the manufacturing of these products four types of raw materials are required. The prices of raw materials, the raw material units needed for each product type and the corresponding available quantities within a certain time period are included in the following table.

Raw material	Unit Price		Available raw

	(in sh.)	Products			material units
		A	B	C	
1	3	0	2	3	50
2	2	3	2	1	200
3	0.5	4	4	6	200
4	1	0	2	1	100

The company's goal is to determine the quantities of each product which should be produced in order to achieve the highest profit.

Required:

(i) Formulate the linear programming model to achieve the objectives **(6 marks)**

(ii) Determine the optimal mix **(8 marks)**

(iii) Calculate the maximum contribution **(8 marks)**