TECHNICAL UNIVERSITY OF MOMBASA

School of Business

DEPARTMENT OF ACCOUNTING AND FINANCE

UNIVERSITY EXAMINATIONS FOR DEGREE IN BACHELOR OF COMMERCE

BAC 4203: MANAGEMENT ACCOUNTING

SERIES: APRIL 2022

TIME: 2 HOURS

INSTRUCTIONS:

Answer Question **ONE (Compulsory)** and any other **TWO** questions

This paper consists of Four printed pages

Question One

Lookman Ltd. manufactures a single product. During the period from January 2021 to March 2021, the following data was recorded:

Month	Output	Cost (Units) (Sh.)
January	8,240	167,590
February	8,750	173,260
March	8,100	165,772

Required: :

(i) Using the high-low method, derive a predictor equation in the form of Y =a + bx for the company. (4 marks)

(ii) Determine the total cost that would be incurred to produce 8,500 units of the product. - (2 marks)

(b) Lengo Ltd. manufactures three products namely; A, B and C. The following data relates to the three products:

	Product A	Product B	Product C
	Sh.	Sh.	Sh.
Selling price per unit	250	320	460
Production cost per unit:			
Variable overheads	16	20	28
Installation labour	24	32	44
Manufacturing labour	40	55	70
Raw materials	70	110	155

Additional information: :

i. Highly skilled labour is required for installation of the three products in the customer's premises. A maximum of 25,000 hours of highly skilled labour are currently available at Sh.8 per hour during the production period.

2. Fixed costs for the production period are Sh.450,000.

3. The maximum demand for Produets A, B and C is 2,000 units, 3,000 units and 1,800 units respectively.

Required:

(i) The current shortfall in highly skilled labour at maximum demand. (6 marks)

(ii) : The optimal production mix. . (5 marks)

(iii) The resultant profit at the optimal production mix. (4 marks)

(b) XFZ ltd. are specialists in the production of tyres. The following is the company's cost structure.

Direct Materials	150
Direct labour	80
Factory overheads	120
	350

It is estimated that all the factory overheads are variable. The company sells a tyre as sh. 500.

The amount of fixed costs_of operating the new factory are expected to be as follows:

	Sh.
Rental and Premises	240,000
Depreciation on plant and equipment	60,000
	300,000

Required:

(i) Calculate the break-even level of output in units and in shillings (4 marks)

(ii) Suppose the company intended to make a profit of sh. 300,000, what output level in units should be attained? (5 marks)

Question Two

Compact Discs is a thriving music business, buying and selling CDs to the public. They sell 2 ranges of CDs, Classical and Popular. The following information is available to you:

	Classical	Popular
(Selling price per CD	sh.4	sh.10
Buying price per CD	sh. 2	sh. 6
Contribution per CD	sh.2	sh.4

For every 4 CDs sold, 3 are popular and 1 is classical. The shop's fixed costs for wages, rent etc are sh,50,000.

Required:

(a)Calculate the breakeven point for the business, in terms of CDs to be sold. (5 marks)

!b) What would the shop's profit/loss be, if they sold 22,000 CDs in a!year? (5 marks)

c) If the business decided to open another shop in a nearby town – Shaw Heath–which was to have annual running costs of sh.36,000, what would the combined breakeven point of the 2 shops!be? (10 marks)

Question Three

The following standard data!are available: Product

	Able	Baker

Direct materials per unit		sh.10	sh.30.
	Rate per hour		
Direct labour:			
Grinding	Sh.5.	7 hours	5 hours
Finishing	sh.7.5	15 hours	9 hours
Selling price per unit		sh.206.5	sh. 168.
Budgeting production		1200 units	600 units
Maximum sales for the period		1500 units	800 units

Notes:

(1) No closing stocks are anticipated.

2) The skilled labour used for the grinding processes is highly specialized and in short supply, although there is sufficient to meet the budgeted production. However, it will not be possible to increase the supply for the budget period.

Required;

(a) Prepare a statement showing the contribution from each product based on the budgeted production. (10 marks)

(b) Prepare a statement showing the total contribution that could be obtained if the best use was made of the skilled grinding labour. (10 marks)

Question Four

AB Ltd. is engaged in process Engineering Industry. During the month of April, 2015, 2,000 units were introduced in Process 'X'. The normal loss was estimated at 5% of input. At the end of the month 1,400 units had been produced and transferred to process Y. 460 units incomplete and 140 units after passing through fully the entire process had to be scrapped. The incomplete units had reached the following stage of completion.

Material	75% completed
Labour	50% completed
Overhead	50% completed

Following are the further information on the Process 'X'

Cost of the 2,000 units	58,000
Additional Direct Material	14,400
Direct Labour	33,400

Direct Overheads	16,700

Units scrapped relaised ` 10 each.

Required:

Prepare Statement of Equivalent Production, Statement of Cost, Statement of Evaluation and the Process X Account (12 marks)

(b) Discuss the following terms:

(i) Transfer pricing (2 marks)

(ii) Cost centre (2 marks)

(iii) Responsibility centre (2 marks)

(iv) Relevant costs (2 marks)

Question Five

Choco Food Products is a new entrant in the market for chocolates. It has introduced a new product "Sweets". This is a small rectangular chocolate bar. The bars are wrapped in aluminium foil and packed in attractive cartons containing 50 bars. A carton is, therefore, considered the basic sales unit. Although management had made detailed estimates of costs and volumes prior to undertaking this venture, new projections based on actual cost experience are now required.

Income statements for the last two quarters are each thought to be representative of the costs and productive efficiency we can expect in the next few quarters. There were virtually no inventories on hand at the end of each quarter. The income statements reveal the following:

		First Quarter	Second Quarter
Sales	50,000 × ` 24	1,200,000	–
	70,000 × ` 24	–	1,680,000
Less : Cost of Goods Sold		700,000	880,000
Gross margin		500,000	800,000
Less : Selling and Administration		650,000	690,000
Net income (loss) before taxes		(150,000)	110,000

Less : Tax (negative)	60,000	44,000

Net income (Loss) (90,000) 66,000

The firm's overall marginal and average income tax rate is 40%. This 40% figure has been used to estimate the tax liability arising from the chocolate operations.

Required:

(a) Management would like to know the break-even point in terms of quarterly carton sales for the chocolates. (4 marks)

(b) Management estimates that there is an investment of sh. 3,000,000 in this product line. What quarterly carton sales and total revenue are required in each quarter to earn an after-tax return of 20% per annum on investment? (8 marks)

(c) The firm's marketing people predict that if the selling price is reduced by ` 1.50 per carton (` 0.03 off per chocolate bar) and a 150,0000 advertising campaign among school children is mounted, sales will increase by 20% over the second quarter sales. Should the plan be implemented? (8 marks)