



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR
FOURTH YEAR FIRST SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS
BACHELOR OF COMMERCE**

COURSE CODE: BCM 4104

COURSE TITLE: MANAGEMENT ACCOUNTING

DATE: 8TH DECEMBER, 2022

TIME: 1100-1300

INSTRUCTIONS TO CANDIDATES

- *Answer question ONE (compulsory) and any other THREE questions.*
- *Question one carries 25 marks*
- *All other questions carry 15 marks*

QUESTION ONE

a) Supply chain analysis is part of value chain analysis. This news item indicates the types of businesses that feel they need to know more about their supply chains.

Six leading consumer products companies have joined forces to conduct an in-depth review of the supply chain best practices and metrics of the world's leading consumer products companies. Campbell Soup Company, Coca-Cola, Coors, Hallmark, Whirlpool, and Polo Ralph Lauren Corporation have formed the Advisory Board for the Consumer Products Supply Chain Best Practices Review.

Focused on **supply chain processes**, the Advisory Board will define the specific processes and metrics to be surveyed and will oversee the collection and analysis of responses from participating companies through a web-based interview tool. The data analyzed will be presented to participants in a series of reports and review meetings that will provide very specific insights into the current and best practices of consumer products companies within various industry sub-categories.

Required:

In reference to the above

- i) What kinds of costs might be involved in the supply chains of each of these businesses? **(6 Marks)**
- ii) How could businesses of this type 'add value' by improving the supply chain? **(3 Marks)**

b) "When production capacity is limited and it is possible to obtain additional customer orders, a firm must consider its opportunity costs to evaluate the profitability of these new orders."

Required

In light of this statement discuss the concept opportunity costs and its relevance in non-routine decisions. **(3 Marks)**

a) Patterson Parkas Company's sales revenue is Ksh.30 per unit, variable costs are Ksh.19.50 per unit, and fixed costs are Ksh.147,000.

Required

- i) Compute Patterson's contribution margin per unit and contribution margin ratio. **(2 Marks)**
- ii) Determine the number of units Patterson must sell to break even. **(2 Marks)**
- iii) Determine the sales revenue required to earn (pretax) income equal to 20% of revenue. **(2 Marks)**
- iv) How many units must Patterson sell to generate an after-tax profit of sh.109,200 if the tax rate is 35%? **(2 Marks)**
- v) Patterson is considering increasing its advertising expenses by sh.38,500. How much of an increase in sales units is necessary from expanded advertising to justify this expenditure (generate an incremental contribution margin of sh.38,500)? **(4 Marks)**

- b) Distinguish between Maximin, Maximax and regret criteria as used in decision making under conditions of uncertainty . When might it be appropriate to apply these criteria?
(3 Marks)

QUESTION TWO

- a) Using relevant examples discuss any **five (5)** limitations of budgeting and budgetary control.
(5 Marks)
- b) The following information relates to , DB Ltd for 4 months that ended on 31 December 2021:

Month	Sales Sh.	Purchase Sh.	Wages Sh.	Other Expenses Sh.
July	60,000	40,000	8,000	9,000
August	90,000	60,000	10,500	8,850
September	75,000	50,000	17,500	8,000
October	90,000	60,000	17,100	7,850
November	105,000	70,000	12,000	7,300
December	120,000	80,000	12,000	7,050

Additional Information:

- i) Cash in hand on 01 September 2021 – Sh. 47,000.
- ii) It is expected that 50% of the sales will be in cash and 25% of the purchases will be made on credit.
- iii) 75% of the Credit Sales is realized 1 month after the sales, 20% realized is after 2 months of sale and the balance is bad debt.
- iv) 70% of the credit purchases is paid after 1 month and the remaining 30% is paid after 2 months of purchase.
- v) Wages are paid on the 3rd day of the following month.
- vi) Other Expenses include a depreciation of sh. 2,000 p.m.
- vii) Commission @ 5% on the total sales payable after 1 month is not included in the other expenses.
- viii) Machinery is purchased @ sh. 60,000 and the payment is to be made in September.
- ix) A Dividend on investments of sh.. 10,250 is to be received in November.
- x) Th e company has 10% Debentures of sh. 100,000. The interest is payable quarterly in March, June, September and December.
- xi) In case of deficit in cash in any month, the company can arrange an overdraft from the bank for that month, and such overdraft is to be repaid as early as possible out of the Surplus Cash of the subsequent month. Ignore the interest on the overdraft .

Required

Prepare the Cash Budget of DB Limited for the 4 months—September, October, November and December, 2021.
(10 Marks)

QUESTION THREE

a) ABC Ltd produces product **A & B** from the same process. Joint processing costs of sh. 150,000 are incurred up to the split off point where 100,000 units of A and 50,000 units of B are produced. The selling prices for products A and B at the split-off point are sh.1.25 per unit and sh.2.00 per unit respectively. Units of **A** can be processed further to produce 60,000 units of **A+** which will incur a fixed cost sh.20,000 and variable cost of sh.0.3 per unit.

Required

Advise the Company whether to sell product A or product A+ (5 Marks)

b) Genis Battery Company is considering accepting a special order for 50,000 batteries that it received from a discount retail store. The order specified a price of sh.4 per unit, which reflects a discount of sh.0.50 per unit relative to the company's regular price of sh.4.50 per unit. Genis's accounting department has prepared the following analysis to show the cost savings resulting from additional sales:

Costs	Cost per Unit without the additional Sales (100,000 Units)	Cost per Unit with the Additional Sales (150,000 Units)
Variable	Sh.3.3	Sh.3.3
Fixed	Sh.0.9	Sh.0.6

No additional fixed costs will be incurred for this order because the company has surplus capacity. Because the average cost per unit will be reduced from sh.4.20 to sh.3.90, Genis's president believes that a reduction in the price to sh.4 is justified for this order.

Required

(a) Should the order for the 50,000 units at a price of sh.4 be accepted? What will be the impact on Genis's operating income? (4 Marks)

(b) Is the accounting department's analysis the best way to evaluate this decision? What alternative method can you suggest? (3 Marks)

(c) What other considerations are important in this case? Why? (3 Marks)

QUESTION FOUR

a) A company, which operates from a number of different locations, uses a system of centralized purchasing. The directors of the company are considering whether to change to a system of decentralized purchasing.

Required

Discuss **five (5)** benefits that may result from the company using a decentralized purchasing system. (5 Marks)

b) Rosaland Limited, a manufacturer of tractors and other heavy farm equipment, is organized along decentralized lines, with each manufacturing division operating as a separate profit centre. Each divisional manager has been delegated full authority on all decisions involving the sale of that division's output both to outsiders and to other divisions of Gustavsson. Division C has in the past always purchased its

requirement of a particular tractor-engine component from Division A. However, when informed that Division A is increasing its selling price to Sh.150, Division C's manager decides to purchase the engine component from outside suppliers.

Division C can purchase the component for sh.135 on the open market. Division A insists that, because of the recent installation of some highly specialized equipment and the resulting high depreciation charges, it will not be able to earn an adequate return on its investment unless it raises its price. Division A's manager appeals to top management of Rosaland for support in the dispute with Division C and supplies the following operating data:

C's annual purchases of tractor-engine component	1000 units
A's variable costs per unit of tractor-engine component	sh.120
A's fixed costs per unit of tractor-engine component	sh.20

Required

i) Assume that there are no alternative uses for internal facilities. Determine whether the company as a whole will benefit if Division C purchases the component from outside suppliers for sh.135 per unit.

(3 Marks)

ii) Assume that internal facilities of Division A would not otherwise be idle. By not producing the 1000 units for Division C, Division A's equipment and other facilities would be used for other production operations that would result in annual cash-operating savings of sh.18,000. Should Division C purchase from outside suppliers?

(4 Marks).

iii) Assume that there are no alternative uses for Division A's internal facilities and that the price from outsiders drops sh.20. Should Division C purchase from outside suppliers?

(3 Marks)

QUESTION FIVE

- a) Explain any **three(3)** linear regression assumptions **(3 Marks)**
- b) The production manager of XYZ Company, is concerned about the apparent fluctuation in efficiency and wants to determine how labour costs (in Sh.) are related to volume. The following data presents results of the 12 most recent weeks.

Week No.	1	2	3	4	5	6	7	8	9	10	11	12
Units Produced (X)	34	44	24	36	30	49	39	21	41	47	34	24
Labour Costs (Y)	340	346	287	262	220	416	337	180	376	295	215	275

REQUIRED

- i) Derive the linear labour cost prediction function $Y=a+bx$ using least squares method. **(8 Marks)**
- ii) Suppose XYZ Company wanted to test the reliability of the labour prediction function derived in (a) above; Compute the coefficient of determination (r^2) and interpret it. **(4 Marks)**

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