



POST GRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF MASTER OF BUSINESS ADMINISTRATION

MBA 507: MANAGERIAL ACCOUNTING

DATE: 1ST APRIL 2026

DURATION: 3 HOURS

MAXIMUM MARKS: 60

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **FOUR (4)** questions.
4. Question **ONE is compulsory.**
5. Answer any other **TWO** questions.
6. Question **ONE** carries **30 MARKS** and the rest carry **15 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided**

QUESTION ONE

Read the Case Study below carefully and, answer the questions that follow:

A) Responsibility Accounting at Green Fields Manufacturing Ltd

Background:

Green Fields Manufacturing Ltd produces eco-friendly packaging materials. The company has adopted a responsibility accounting system to improve accountability and control across its three main departments:

Production Department - overseen by Mr. Kimani, responsible for efficiency in material usage and labor costs.

Sales Department - led by Ms. Atieno, tasked with meeting revenue targets through product sales.

Support Services Department - headed by Mr. Mwangi, manages administration, IT, and finance functions.

Each department is evaluated based on performance reports comparing actual outcomes to budgeted targets.

Performance Summary for Q1 2025:

Department	Budgeted Cost/Revenue (KES)	Actual (KES)	Variance
Production	20,000,000	21,200,000	Unfavorable
Sales	45,000,000	48,500,000	Favorable
Support Services	10,000,000	9,800,000	Favorable

The Production variance was due to increased overtime and machine breakdowns. Sales exceeded targets due to a new marketing campaign. Support Services saved costs by digitizing operations.

Required:

- i. What is a responsibility center, and how are the three

departments at Green Fields classified under responsibility accounting? **(2 Marks)**

- ii. Should Mr. Kimani (Production Manager) be held accountable for the unfavorable variance? Justify your answer using the controllability principle.

(3 Marks)

- iii. Evaluate Ms. Atieno's performance in the Sales Department. Does the favorable revenue variance indicate effective management?

(2 Marks)

- iv. Suggest ways Green Fields Ltd can enhance the fairness of its responsibility accounting system.

(3 Marks)

B) Jaza Juices Ltd. – Profit Planning with Fresh Smoothies

Background

Jaza Juices Ltd. is a mid-sized beverage company based in Nairobi, Kenya. The company produces and sells natural fruit smoothies to health-conscious consumers. Recently, the CEO has expressed interest in understanding how production volume, pricing, and costs affect the company's profitability. The Finance Manager has been asked to prepare a CVP analysis for the company's bestselling product: **Mango Delight Smoothie**.

The following information has been compiled for the Mango Delight product for the current financial year:

- **Selling price per unit:** KES 250
- **Variable cost per unit:** KES 100
- **Total fixed costs per year:** KES 3,000,000
- **Annual sales volume (expected):** 25,000 units

The company is considering expanding its production capacity by increasing sales by 20%, but this would also increase fixed costs by KES 500,000 due to marketing and staffing.

Required:**i. Break-even Analysis**

Calculate the break-even point in units and in KES. **AND** interpret the results for the management team. **(2**

Marks)

ii. Target Profit Analysis

If Jaza Juices wants to earn a target profit of KES 1,500,000, how many Mango Delight smoothies must it sell?

(1 Mark)

iii. Impact of Planned Expansion

Evaluate the effect of a 20% increase in sales volume and KES 500,000 increase in fixed costs on the company's net profit. Should the company proceed? **(4 Marks)**

C) ABC Costing at Nuru Furniture Ltd

Nuru Furniture Ltd manufactures two products: Office Desks and Bookshelves. The company is trying to improve its costing system by adopting Activity-Based Costing (ABC) instead of its traditional costing method.

The following information relates to activities and cost drivers for the month of April:

Activity	Cost Pool (KSh)	Cost Driver	Total Quantity	Driver
Machine Setup	120,000	Number of Setups	30	setups
Quality Inspection	90,000	Number of Inspections	60	inspections

Activity	Cost Pool (KSh)	Cost Driver	Total Quantity	Driver
Packaging & Shipping	60,000	Number of Shipments	20	shipments

Production Data:

Product	Units Produced	Setups	Inspections	Shipments
Office Desks	400	10	15	8
Bookshelves	600	20	45	12

Required:

Using Activity-Based Costing (ABC), calculate the total overhead cost assigned to each product and determine the overhead cost per unit for Office Desks and Bookshelves.

(5 Marks)

D) InnovX Solutions Ltd. - Rethinking Performance in the Digital Age

Background:

InnovX Solutions Ltd. is a mid-sized tech firm based in Nairobi, Kenya, specializing in software development and digital transformation

services. Over the past decade, it has grown rapidly due to its innovative solutions and strong client relationships. However, as competition intensifies and clients demand more measurable outcomes, the leadership at InnovX recognizes the need to go beyond traditional performance metrics like revenue growth, profit margins, and customer satisfaction.

In 2023, the company appointed a Chief Performance Officer (CPO) tasked with overhauling the performance management system. The CPO introduced emerging performance metrics, including:

Customer Lifetime Value (CLV)

Employee Net Promoter Score (eNPS)

Digital Engagement Index (DEI)

Sustainability Scorecard (SS)

Innovation Yield Rate (IYR)

These new metrics aimed to align performance with long-term value creation, digital transformation, employee experience, and environmental responsibility.

However, implementation was not without challenges. Some departments resisted, arguing the new metrics were too abstract or hard to quantify. Others embraced the change, particularly the R&D and marketing teams.

Required:

- i. Evaluate the rationale behind at least three emerging performance metrics adopted by InnovX.

(3 Marks)

- ii. Discuss two potential benefits of integrating emerging metrics into InnovX's performance management system.

(2 Marks)

- iii. What resistance might arise from departments with the implementation of these new metrics, and how can the leadership address it? **(3 Marks)**

QUESTION TWO**ABC Manufacturing Ltd.****Background:**

ABC Manufacturing Ltd. produces a single product, **Alpha Widget**. The company uses a **standard costing system**. The following are the **standard cost details** per unit:

Cost Element	Standard Quantity/Hours	Standard Price/Rate	Standard Cost per Unit
Direct Material A	4 kg	Kshs5 per kg	Kshs20.00
Direct Labour	2 hours	Kshs10 per hour	Kshs20.00
Variable Overhead	2 hours	Kshs4 per hour	Kshs8.00
Total Standard Cost per Unit	—	—	Kshs48.00

In **April 2025**, the company planned to produce **1,000 units**, but actually produced **900 units**. The actual results for the month were:

- **Direct Materials Used:** 3,700 kg at Kshs5.20 per kg
- **Direct Labour Used:** 1,950 hours at Kshs9.50 per hour
- **Variable Overheads Incurred:** Kshs7,800

Required:

- a) Calculate the Material Price Variance (MPV). **(3 Marks)**
- b) Calculate the Material Usage Variance (MUV). **(3 Marks)**
- c) Calculate the Labour Rate Variance (LRV). **(3 Marks)**
- d) Calculate the Labour Efficiency Variance (LEV) **(2 Marks)**

- e) Calculate the Variable Overhead Spending Variance (VOHSV)(2 Marks)
- f) Calculate the Variable Overhead Efficiency Variance (VOHEV) (2 Marks)

QUESTION THREE

(A) SimbaTech Electronics Ltd. - Throughput Costing in Practice

Background:

SimbaTech Electronics Ltd. is a Kenyan-based company that assembles and sells consumer electronics, including smartphones and tablets. The company currently faces stiff competition and rising overhead costs. Management is considering switching from traditional absorption costing to **throughput costing** to improve decision-making.

In one production month, SimbaTech provides the following data for its **Model Z Phone**:

- Selling Price per unit: KSh 25,000
- Direct Material Cost per unit: KSh 8,000
- Direct Labour Cost per unit: KSh 3,000
- Variable Manufacturing Overheads per unit: KSh 1,500
- Fixed Manufacturing Overheads per month: KSh 1,200,000
- Units produced: 1,000
- Units sold: 900

Required:

- i. What is the throughput per unit for the Model Z Phone? (2 Marks)
- ii. Calculate the total throughput for the month. (2 Marks)
- iii. What is the Net Operating Profit under Throughput Costing? (3 Marks)

- iv. How would profit differ under absorption costing? **(3 Marks)**

B) Greentex Textiles Ltd - Adopting Environmental Management Accounting

Background:

Greentex Textiles Ltd is a mid-sized textile manufacturer located in Nakuru, Kenya. The company produces cotton garments for local and export markets. Over the years, it has faced increasing pressure from international buyers to demonstrate environmental responsibility and compliance with sustainability standards.

Greentex uses large amounts of water and energy in its dyeing and finishing processes. It also generates significant textile waste and chemical effluents. In the past, environmental costs were lumped into overheads, making it difficult to trace their origin or manage them effectively.

In 2023, Greentex's management decided to implement **Environmental Management Accounting (EMA)** to improve resource efficiency, identify cost-saving opportunities, and respond to stakeholder concerns. The company partnered with a consultancy to train staff and restructure their accounting system to separately track energy, water, and waste costs.

After six months of implementation, EMA revealed that:

- Energy costs constituted 15% of production costs.
- 40% of water used was lost due to leakages and inefficient equipment.
- Textile offcuts and defects added up to 12% of total raw materials purchased.

Greentex implemented several initiatives:

- Installed flow meters to track water usage.
- Repaired leakages and upgraded dyeing machines.

- Introduced a waste sorting program to recycle offcuts into cleaning cloths.
- Began reporting environmental costs in monthly management reports.

Required:

- i)** Define Environmental Management Accounting (EMA) and explain how it differs from traditional accounting.

(2 Marks)

- ii)** List four environmental costs that Greentex likely identified through EMA. **(2**

Marks)

- iii)** How can EMA support better decision-making in a manufacturing firm like Greentex?

(1 Mark)

QUESTION FOUR

A) Master Budget for Smart Home Appliances Ltd

Background:

SmartHome Appliances Ltd is a mid-sized manufacturing company that produces smart kitchen appliances. The company is preparing its annual master budget for the year ending December 31, 2025.

SmartHome plans to manufacture and sell a single product: the "SmartCook Pro." The budgeted sales volume for 2025 is 60,000 units. The selling price is Kshs250 per unit. The company follows a just-in-time inventory policy, keeping only 5% of the next month's expected sales as ending inventory and no beginning inventory.

Cost Information (per unit):

- Direct Materials: Kshs40
- Direct Labour: Kshs25
- Variable Manufacturing Overhead: Kshs15

- Fixed Manufacturing Overhead: Kshs600,000 annually
- Selling and Administrative Expenses: Variable - Kshs10 per unit; Fixed - Kshs400,000 annually

Required:

- i.** Prepare the sales budget for the year **(2 Marks)**
 - ii.** Calculate the required production for each quarter using the production budget **(3 Marks)**
 - iii.** Prepare the direct materials budget assuming each unit requires 2 kg of material at Kshs5 per kg. Desired ending inventory for materials is 10% of next quarter's needs. Beginning inventory of materials is 0. **(3 Marks)**
 - iv.** Calculate the budgeted income for the year. **(4 Marks)**
- B) Explain the challenges that a company might face when trying to close a target cost gap. **(3 Marks)****