



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Business & Social Studies

DEPARTMENT OF BUSINESS STUDIES

**UNIVERSITY EXAMINATION FOR BACHELOR OF BUSINESS
ADMINISTRATION (BBA IV SI)**

HBC 2217: ISSUES IN MANAGEMENT ACCOUNTING

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2012

TIME ALLOWED: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

Answer question **ONE (COMPULSORY)** and any other **TWO** questions

This paper consists of **FIVE** printed pages

Question One (Compulsory)

a) The manager of Division C has prepared the following forecasts for his division for next year.

	Shs
Operating profit after charging depreciation of shs. 2,000,0000	6,500,000
Net current assets at beginning of year	3,000,000
Net book value of fixed assets at beginning of year	18,000,000

The company's cost of capital is 25%

Required:

(i) Compute the forecast return on investment;

- (ii) Compute the forecast residual income for the division, based on beginning of year balance sheet values. **(6 marks)**
- b) Describe the target costing approach to cost management. **(6 marks)**
- c) Explain the value and use of non-financial cost management. **(6 marks)**
- d) Bomu Ltd, a manufacturing company, has two divisions: Division A and Division B. Division A produces one type of product, ProdX, which it transfers to Division B and also sells externally. Division B has been approached by another company which has offered to supply 2,500 units of ProdX for shs 3500 each.

The following details for Division A are available.

	Shs
Sales Revenue:	
Sales to Division B @ shs 4,000 per unit	40,000,000
External sales @ shs 4,500 per unit	27,000,000
Less:	
Variable cost @ shs 2,200 per unit	35,200,000
Fixed costs	<u>10,000,000</u>
 Profit	 <u>21,800,000</u>

Required:

Determine the impact of the decision on the profits of Division A and the whole company (Bomu Ltd), if Division B decides to buy from the other company, assuming external sales of ProdX cannot be increased. **(6 marks)**

- e) An investment has the following cash inflows and cash outflows:

Time	Cash flow per Annum
	Shs (000)
0	(20,000)
1 – 4	3,000
5 – 8	7,000
10	(10,000)

Required:

Determine the net present value of the investment at 8% discount rate: **(6 marks)**

Question Two

The balanced scorecard philosophy creates a strategic focus by translating an organization’s vision and strategy into operational objectives and performance measures for the following four perspectives.

1. Financial perspective
2. Customer perspective

3. Internal business perspective
4. Learning and growth perspective

Required:

Explain in sufficient details each one of the above perspectives.

(20 marks)

Question Three

Val-Tek Company is considering the replacement of an old threading machine. A new threading machine is available that could substantially reduce annual operating costs. Selected data relating to the old and the new machines are presented below:

	Old Machine	New Machine
	Shs	Shs
Purchase cost when new	2,000,000	2,500,000
Salvage value now	300,000	-
Annual cash operating costs	1,500,000	900,000
Overhaul needed immediately	400,000	-
Salvage value in six years	0	500,000
Remaining life	6 years	6 years

Val-Tek Company uses a 10% discount on all its capital investment projects.

Required:

Provide an analysis of the alternatives to determine if the company should replace the machine or not.

(20 marks)

Question Four

Lamu Ltd operates an activity-based costing system and has forecast the following information for next year.

Cost Pool	Cost (Shs)	Cost Driver	Number of Drivers
Production Set-ups	10,500,000	Set-ups	300
Production Testing	30,000,000	Tests	1,500
Component Supply and Storage	2,500,000	Components	500
Customer Orders and Delivery	11,250,000	Customer Orders	1,000

General fixed overheads such as lighting and heating, which cannot be linked to any specific activity, are expected to be sh 90,000,000 and these overheads are absorbed on a credit labour hour basis. Total direct labour hours for next year are expected to be 300,000 hours.

Lamu Ltd expects orders for product XT1 next year to be 100 orders of 60 units per order and 60 orders of 50 units per order. The company holds no stocks of product XT1 and will need to produce the order requirement in production runs of 900 units. One order for components is placed prior to

each production run. Four tests are made during each production run to ensure that quality standards are maintained. The following additional cost and profit information relates to product XT1.

Components cost	Shs 100 per unit
Direct labour	10 minutes per unit at shs 780 per hour
Profit markup	40% of total unit cost

Required:

- a) Calculate the activity-based recovery rates for each cost pool. **(4 marks)**
- b) Calculate the total unit cost and selling price of product XT1 **(12 marks)**
- c) Discuss the reasons why activity-based costing may be preferred to traditional absorption costing in the modern manufacturing environment. **(4 marks)**

Question Five

Magarini Ltd makes and sells two products A and B each of which passes through the same automated production operations. The following estimated information is available for period 1.

Product unit data

	A	B
Direct material cost (shs)	200	4,000
Variable production overhead cost (sh)	2,800	400
Overall hours per product unit (hours)	0.25	0.15

Original estimates of production/sales of products A and B are 120,000 units and 45,000 units respectively. The selling prices per unit for A and B are sh. 6,000 and sh. 7,000 respectively.

Maximum demand for each product is 20% above the estimated sales levels.

Total fixed production overhead cost is sh. 147,000,000.

This is absorbed by products A and B at an average rate per hour based on the estimated production levels.

One of the production operations has a maximum capacity of 3,075 hours which has been identified as a bottleneck which limits the overall estimated production/sales of product A and B. The bottleneck hours required per product unit for products A and B are 0.02 and 0.015 respectively.

Required:

- a) Calculate the mix (in units) of product A and B which will maximize net profit and the value (in sh) of the maximum net profit. **(8 marks)**
- b) Magarini Ltd has now decided to determine the profit-maximizing mix of product A and B based on the through put accounting principle of maximizing the throughput return per production hour of the bottleneck resource.

Given that the variable overhead cost, based on the value (in shs) which applied to the original estimated production/sales mix, is now considered to be fixed for the short/intermediate term:

- (i) Calculate the mix (of units) of products A and B which will maximize net profit and B and the value of that net profit. **(8 marks)**
- (ii) Calculate the throughput accounting ratio for product B. Comment on it. **(4 marks)**