

TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF BUSINESS

ACCOUNTING AND FINANCE DEPARTMENT

**COURSE/CLASS: BACHELOR OF COMMERCE
FOURTH YEAR**

UNIT : BAC 4407

UNIT NAME : ISSUES IN MANAGEMENT ACCOUNTING

SERIES : MAY 2016

TIME : 2 HOURS

INSTRUCTIONS TO CANDIDATES:

Answer Question One (Compulsory) and any other TWO questions.

QUESTION 1 (COMPULSORY)

- (a) Kibera Ltd has established the following information regarding fixed overheads for the coming month:

(b)

Budgeted information:

Fixed overheads	Sh.18 million
Labour hours	3,000 hours
Machine hours	10,000 hours
Units of production	5,000 units

Actual fixed costs for the last month were sh.16 million.

Kibera Ltd produces many different products using highly automated manufacturing processes and absorbs overheads on the most appropriate basis.

Required:

Determine the pre-determined overhead absorption rate.

(4 marks)

- (c) A newly formed company has drawn up the following budgets for its first two accounting periods:

	Period 1	Period 2
Sales Units	9,500	10,300
Production Units (equivalent to normal capacity)	10,000	10,000

The following budgeted information applies to both periods:

	Sh
Selling price per unit	640
Variable cost per unit	360
Fixed production overhead per period	1,500,000

Required:

- (i) Determine the budgeted profit under both absorption costing and marginal costing in period 1 and comment on the difference between the two approaches. (2 marks)
- (ii) In Period 2, everything was as budgeted, except for the fixed production overhead, which was sh.1,570,000. Determine the reported profit, using absorption costing in period 2. (2 marks)
- (d) Sossion Company Ltd has two divisions, A and B, whose respective performances are under review. Division A is currently earning a profit of sh.35 million and has net assets of sh.150 million.

Division B currently earns a profit of sh.70 million with net assets of sh.325 million. The company has a current cost of capital of 15%.

Required:

- (i) Using the information above, calculate the return on investment (ROI) and residual income (RI) figures for the two divisions under review and comment on your results. (2 marks)
 - (ii) State which method of performance evaluation (i.e return on investment or residual income) would be more useful when comparing divisional performance and why. (2 marks)
 - (iii) List three general aspects of performance measures that would be appropriate for a service sector company. (2 marks)
- (e) Identify and explain the benefits and limitations of the balanced scorecard approach. (12 marks)
- (f) Muto Co. Ltd operates a backflush costing system.
The standard cost of product Z is:

	Sh.
Materials	600
Conversion	<u>800</u>
	<u>1400</u>

Details of transactions in the month were:

	Sh.
Raw materials b/f	200,000
Purchases	1,000,000
Conversion	1,500,000
Cost of goods sold	2,050,000

Required:

Determine the closing balance on raw materials account. (4 marks)

QUESTION 2

- (a) Explain the circumstances when ABC (Activity based Costing) is likely to be preferred to traditional costing systems. (5 marks)
- (b) It is now fairly widely accepted that conventional cost accounting distorts management's view of business through unrepresentative overhead allocation and inappropriate product costing.

This is because the traditional approach usually absorbs overhead costs across products and orders solely on the basis of the direct labour involved in their manufacture. And as direct labour as a proportion of total manufacturing cost continues to fall, this leads to more and more distortion and misrepresentation of the impact of particular products on total overhead costs.

Required:

Discuss the above statement and suggest what approaches are being adopted by management accountants to overcome such criticisms. (15 marks)

QUESTION 3

A furniture-making business manufactures quality furniture to customers' orders. It has three production departments and two service departments. Budgeted overhead costs for the coming year are as follows:

	Total Sh.000
Rent and rates	12,800
Machine insurance	6,000
Telephone charges	3,200
Depreciation	18,000
Production Supervisor's salaries	24,000
Heating and lighting	<u>6,400</u>
	<u>70,400</u>

The three production departments – A, B and C, and the two service departments – X and Y, are housed in one premises, the details of which, together with other statistics and information, are given below:

	Departments				
	A	B	C	X	Y
Floor area occupied (sq. metres)	3000	1800	600	600	400
Machine Value (sh.000)	24,000	10,000	8,000	4,000	2,000
Direct Labour hours budgeted	3,200	1,800	1000		
Labour rates per hour	Sh.3,800	Sh.3,500	Sh.3,400	Sh.3,000	Sh.3,000
<u>Allocated Overheads:</u>					
Specific to each department (Sh.000)	Sh.2,800	Sh.1,700	Sh.1,200	Sh.800	Sh.600
Service Department X's Costs apportioned	50%	25%	25%		
Service Department Y's Costs apportioned	20%	30%	50%		

Required:

- (a) Prepare a statement showing the overhead cost budgeted for each department (i.e overhead Analysis sheet), showing the basis of apportionment used. Also calculate suitable overhead absorption rates. (13 marks)

- (b) Two pieces of furniture are to be manufactured for customers. Direct costs are as follows:

	Job X3	Job Y4
Direct materials	Shs.154,000	Sh.108,000
Direct Labour	20 hours Dept A 12 hours Dept B 10 hours Dept C	16 hours Dept A 10 hours Dept B 14 hours Dept C

Calculate the total costs of each job.

(5 marks)

- (c) If the firm quotes prices to customers that reflect a required profit of 25% on selling price, calculate the quoted selling price for each job. (2 marks)

QUESTION 4

Faulu Co. 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 (Sh.)	200	4000
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.6000 and sh.7000 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 products 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 products A and B which will maximize net profit and the value (in sh) of the maximum net profit. (7 marks)
- (b) Faulu Co. Ltd now decided to determine the profit maximizing mix of products A and B based on the throughput 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 sh) which applies to the original estimated production/sales mix, is now considered to be fixed for the short/intermediate term:

- (i) Calculate the mix (in units) of products A and b which will maximize net profit and the value of that net profit. (9 marks)
- (ii) Calculate the throughput accounting ratio for product B. (2 marks)

- (iii) It is estimated that the direct material cost per unit of product B may increase by 20% due to shortage of supply. Calculate the revised throughput accounting ratio for product B and comment on it. (2 marks)

QUESTION 5

A company manufactures MP3 players. It is planning to introduce a new model and development will begin very soon. It expects the new product to have a life cycle of 3 years and the following costs have been estimated.

	Year 1	Year 2	Year 3
Unit manufactured and sold	25,000	100,000	Sh.75,000
Price per unit	Sh.90	Sh.80	Sh.70
R&D costs	Sh.850,000	Sh.90,000	-
<u>Production costs</u>			
Variable cost per unit	Sh.30	Sh.25	Sh.25
Fixed costs	Sh.500,000	Sh.500,000	Sh.500,000
<u>Marketing costs</u>			
Variable cost per unit	Sh.5	Sh.4	Sh.3
Fixed costs	Sh.300,000	Sh.200,000	Sh.200,000
<u>Distribution costs</u>			
Variable cost per unit	Sh.1	Sh.1	Sh.1
Fixed costs	Sh.190,000	Sh.190,000	Sh.190,000
Customer service cost per unit	Sh.3	Sh.2	Sh.2

Required:

- (a) Explain life cycle costing and state what distinguishes it from more traditional management accounting techniques. (10 marks)
- (b) Calculate the cost per unit looking at the whole lifecycle and comment on the price to be charged. (10 marks)