



TECHNICAL UNIVERSITY OF MOMBASA
Faculty of Business & Social Studies
DEPARTMENT OF BUSINESS STUDIES

UNIVERSITY EXAMINATIONS FOR
MASTERS OF BUSINESS ADMINISTRATION

BAC 5102: MANAGEMENT ACCOUNTING

SPECIAL/SUPPLEMENTARY EXAMINATIONS

SERIES: FEBRUARY 2015

TIME: 3 HOURS

INSTRUCTIONS:

– Answer question ONE and any other **THREE** questions.

This paper consists of Four printed pages

QUESTION 1

MVT Ltd manufactures a variety of products, one product MB is produced in a specially equipped factory in which no other production takes for technical reasons the company keeps no stock of the product. The production cost of the MB product for the last four years is as follows:

	1	2	3	4
	Sh.	Sh.	Sh.	Sh.
Raw material	70,000	100,000	130,000	132,000
Skilled labour	40,000	70,000	96,000	115,000
Unskilled labour	132,000	173,000	235,000	230,000
Power	25,000	33,000	47,000	44,000
Factory overhead	<u>168,000</u>	<u>206,000</u>	<u>246,000</u>	<u>265,000</u>
Total costs	<u>435,000</u>	<u>583,000</u>	<u>754,000</u>	<u>786,000</u>
Output (units)	160,000	190,000	220,000	180,000

The cost of raw materials and labour have increased steadily during the past four years at an annual compound rate of 20% and the cost of factory overhead have increased at an annual compound rate of 15% during the same period. Power prices increased by 10% on 1st January year 2 and by 25% on the 1st January of each subsequent year. All cost except power are expected to increase by a further 20% during year 5.

The directors are now formulating the company's production plan for year 5 and wish to estimate the cost of manufacturing product MB. The finance director has expressed the view that the full relevant cost of product MB can be determined only if a fair share of general company overhead is allocated to them. No such allocation is included in the table of costs below:

Required:

- a) Use linear regression analysis to estimate the relationship of total production costs, to volume for the product MB for year 5 ignore general company overhead and do not undertake a separate regression calculation for each item of **cost**. **(15 marks)**
- b) Comment on the view expressed by the finance director. **(4 marks)**
- c) Explain briefly how each of the following methods can be used in cost estimation:
 - i) Accounting analysis
 - ii) Engineering analysis
 - iii) High low method

QUESTION 2

Brace Ltd specializes in the manufacture of an audio product. Historically the company has used solely financial performance measures to assess the performance of the company as a whole. After starting a course in MBA in TUM, the companies Managing Director has recently heard of a balance scorecard approach and is keen to learn more and use it in the company.

Required:

Describe the balance scorecard approach to performance measurement.

(25 marks)

QUESTION 3

- a) The theory of the experience curve in that an organization may increase its profitability through obtaining greater familiarity with supplying its products or services to customers. This reflects the view that profitability is solely a function of market share.

Required:

Discuss the extent to which the application of experience curve theory can help an organization to prolong the life cycle of its products or services. **(15 marks)**

- b) Identify the **SEVEN** basic steps that are taken in decision process. **(10 marks)**

QUESTION 4

A flower company based in a region in Kenya sells two flower products sweet flower and sour flower. With contribution margin ratio of 40 and 30 per cent. The selling prices are sweet flower at sh. 5 and sour flower sh. 2.50 a unit. The fixed costs amounts to sh. 72,000 a month. Monthly sales average 30,000 for sweet flower and 40,000 for sour flower.

Required:

- a) i) Assume that 3 units of sweet flower are sold for every four units of sour flower, calculate the sales volume necessary to breakeven in shillings and in units. **(10 marks)**
 ii) Calculate the margin of safety in sales shillings. **(4 marks)**
- b) If the company spends an additional sh. 9,700 on advertising the sales of sweet flower can increase to 40,000 units a month and sales of sour flower follow by 32,000 units. Advise the management if this proposal should be accepted. **(10 marks)**

QUESTION 5

Assume that company ZM makes three components with the following information:

	Z	M	Y
Units produce	1,000	2,000	4,000
Marginal costs	4	5	2
Direct material	8	9	4
Direct labour	<u>2</u>	<u>3</u>	<u>1</u>
Overhead cost	<u>14</u>	<u>17</u>	<u>7</u>

Total fixed cost sh. 30,000

If the components near to be subcontracted the prices would have been:

$$Z = 12$$

$$M = 21$$

$$Y = 10$$

- a) Required advice the management on the make or buy of the component. **(8 marks)**
- b) Assume that machine hours per unit required to produce the component are
 Z - 4 hrs
 M - 5 hrs
 Y - 3 hrs

The total machine hrs available in 20,000 hrs. Advice to management which product to make and which to buy. **(8 marks)**

c) The following standard costs apply in a business that manufactures a single product.

Standard weight to produce one unit	12 Kg
Standard price per Kg.	Sh. 9
Standard hours to produce per unit	10
Standard rate per hour	Sh. 10

Actual production and costs for one accounting

Period were	
Material used	3,770 Kg
Material costs	Sh. 35,815
Hours actually worked	2,755
Hours paid for	2,900
Wages paid	Sh. 11,571

Actual output was 290 units

Required

Calculate relevant materials to labour variance

(9 marks)