

KIBABI UNIVERSITY

**UNIVERSITY EXAMINATION 2013/2014
MASTER OF BUSINESS ADMINISTRATION
DEPARTMENT OF BUSINESS**

UNIT CODE: MBA 807

UNIT TITLE: MANAGEMENT ACCOUNTING

DATE: AUGUST 2014

MAIN EXAM

TIME:

3HRS

ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE

Maisha Meta Products Ltd. has prepared a schedule of estimated overhead costs for the coming year. The schedule was prepared on the assumption that production would amount to 800,000 units. Costs have been classified as either fixed or variable according to the judgement of the financial controller. The following overhead cost items and their classification as either fixed or variable form the basis for the overhead cost schedule:

| Item | Total cost Sh. '000' |
|--|---------------------------------|
| Indirect materials (variable) | 37,500 |
| Indirect labour (Sh. 171,000 fixed) | 194,200 |
| Rent (fixed) | 236,420 |
| Electricity (variable) | 27,210 |
| Equipment depreciation (fixed) | 181,000 |
| Equipment maintenance (Sh. 8,500 fixed) | 24,330 |
| Personal Property taxes (Sh. 6,350 fixed) | 11,220 |
| | <u>16,940</u> |
| Data Processing (Sh. 9,470 fixed) | <u>742,920</u> |
| Technical support (fixed) | |

The following additional information is provided:

- 1) In the past, the overhead cost have been related to production levels. However, price instability has made the management to suggest that an explicit consideration be given to include an appropriate price index in the cost equation.
- 2) For cost estimation purpose, it is estimated that the coming period's value index will be the same as that of the last period, which is 113.
- 3) Following the management instructions, information was gathered on past costs, production levels and an appropriate price index. The information gathered is given below:
- 4)

| Overhead cost Sh. '000' | Production Units '000' | Price index |
|------------------------------------|-----------------------------------|--------------------|
| 718,480 | 62,800 | 89 |
| 735,110 | 72,800 | 90 |
| 768,310 | 93,400 | 93 |
| 717,670 | 56,900 | 95 |
| 715,960 | 58,800 | 98 |
| 726,880 | 69,000 | 100 |
| 753,420 | 87,000 | 101 |
| 777,640 | 98,000 | 103 |
| 720,410 | 59,200 | 103 |
| 718,100 | 62,600 | 106 |
| 736,800 | 73,100 | 108 |
| 714,220 | 60,400 | 113 |

- 5) There have been no significant changes in operations over the period covered by the above information nor are there any significant changes expected in the incoming period.
- 6) When the information above was entered into a regression program using only the production level as the independent variable, the following results were obtained:

Equation (figure in '000')

Overhead = Sh. 626,547 + (Sh. 1.504 x production units)

Statistical data for the above equation

| | |
|-------------------------|-------|
| Correlation coefficient | 0.988 |
| R-square | 0.976 |
| Adjusted R-square | 0.974 |

7) When both predictors are entered in the regression program, the following results were obtained:

Multiple regression results:

Equation (figures in '000' except the index)

Overhead = Sh. 632,640 + (Sh.1.501 x production units) – (Sh.59.067 x index)

Statistical data for the above equation:

| | | |
|--------------------------------------|------------|--------|
| Correlation coefficient (multiple R) | 0.988 | |
| R-square | 0.976 | |
| Adjusted R-square | 0.972 | |
| Correlation matrix:: | Production | Index |
| | 1.00 | -0.087 |
| Production | -0.087 | 1.00 |
| Index | | |

Required:

- Determine the cost estimation equation using the account analysis method
(6 Marks)
 - Use the high-low method to estimate the cost of 800,000 units of production expected in the coming period.
(4 Marks)
 - Using the simple linear regression, estimate the cost of 800,000 units of production.
(4 Marks)
 - Use the multiple regression results to prepare an estimated cost for the 800,000 units in the incoming period.
(4 Marks)
 - Comment on which of the methods is more appropriate under the above circumstances.
(2 Marks)
- ii) Explain the roles of management accountants in the management process (10marks)
(Total: 30 marks)

QUESTION TWO

Equi-solutions Ltd. was formed ten years ago to provide business equipment solutions to local business. It has separate divisions for research, marketing, product design, technology and communication services, and now manufactures and supplies a wide range of business equipment. To date the company has evaluated its performance using monthly financial reports that analyze profitability by type of equipment. The managing director of Equi-solutions Ltd. has recently returned from a course in which it has been suggested that the "Balanced Scorecard" could be a useful way of measuring performance.

Required:

- Explain the "Balanced Scorecard" and how it could be used by Equi-solutions Ltd. to measure its performance.

- b) The managing director of Equi-solutions Ltd. also overheard someone mention how the performance of their company had improved after they introduced “Benchmarking.”

Required:

Explain “Benchmarking” and how it could be used to improve the performance of Equi-solutions Ltd.
(10 marks)

(Total: 20 marks)

QUESTION THREE

- (a) State four objectives of a transfer pricing system.
- (b) Transfer pricing of products between processes in a manufacturing company can be done at:
1. Cost or
 2. Sales value at the point of transfer.

Required:

Discuss how each of the above methods could be used effectively in the operations of a responsibility accounting system. (8 marks)

- (c) Shadow prices may be used in the setting of transfer prices between divisions in a company, where the intermediate products being transferred are in short supply.

Required:

Explain why the transfer prices thus calculated are more likely to be favoured by the management of the divisions supplying the intermediate products rather than the management of the divisions receiving the intermediate products. (8 marks)

(Total: 20 marks)

QUESTION FOUR

Lotus Ltd manufactures mobile telephones. The current operating level is 400,000 phones but full capacity is 550,000. The phones normally sell for Sh 1,500 per phone. Manufacturing cost data of 400,000 phones is as shown below:

| | Sh'000' | Sh'000' |
|--|----------------|---------------|
| Manufacturing costs | | |
| Variable costs | 300,000 | |
| Fixed costs | <u>187,500</u> | 487,500 |
| Selling and administration costs | | |
| Variable (freight and commissions) costs | 30,000 | |
| Fixed costs | <u>60,000</u> | <u>90,000</u> |
| | | 577,500 |

A vendor offers to buy 100,000 phones for export at Sh 1,125 per phone. The buyer will pay for freight and no commissions will be paid. The acceptance of this offer will not affect the present sales. The managing director is reluctant to accept that offer because he believes that the offer price of Sh 1,125 is well below the manufacturing cost per unit.

Required:

- (i) Should the offer be accepted? (7 marks)
- (ii) What factors should be considered before accepting the order? (3 marks)

Wassant Ltd manufactures a product that uses components made by the company. Due to market liberalization, the same component can be bought from an importer of the component. The management accountant of Wassant Ltd. has provided the following manufacturing data for the component:

| | Shs. |
|----------------------------------|------|
| Direct material | |
| 10 kg of zero 1 @ Sh 25 per kg | 250 |
| Direct labour | |
| Department 1 0.75 hours x Sh 120 | |
| 2 0.6 hours x Sh 125 | 165 |
| Variable overheads | 80 |

Production overheads are recovered on basis of 20% of labour cost in both departments. The cost accountant anticipates that three-quarters of fixed overhead will be incurred irrespective of the decision made. The importer is willing to sell the component at Sh 510 per unit.

Required:

- a) Advise the management of Wassant Ltd whether to make or buy the component. (7 marks)
 - b) What other factors would Wassant Ltd consider before making the decision? (3 marks)
- (Total: 20 marks)**

QUESTION FIVE

- (a) Highlight the assumptions of cost-volume-profit (C-V-P) analysis, (4 marks)

- (b) Mwito Club is a charitable organization based in Nairobi. For the last 20 years, the club has held an annual dinner and dance event with the primary aim of raising funds to help the less fortunate members of the society.

This year, there is concern that an economic recession may adversely affect the success of the event with a fall in the number of guests attending and sale of advertising space in the published events programme.

A study of past experience, current prices and quotations shows that the following costs and revenues will apply for the event:

Revenue

- Dinner and dance
Sale of dinner and dance tickets: Shs. 5,000 per ticket.
Sale of raffle tickets: Shs. 800 per ticket.
Photographs: Shs. 100 per photograph.

- Events programme
Advertising space: Shs. 70,000 per page.

Costs

| | |
|--|-------------|
| • Dinner and dance | Shs. |
| Hire of premises | 210,000 |
| Music band and entertainers | 840,000 |
| Raffle prizes | 790,000 |
| Hire of a photographer | 50,000 |
| Food per person (subject to a minimum of 4,000 guests) | 2,400 |

- Events programme
A fixed cost of Shs. 4,000,000 and a variable cost of Shs. 5,000 per page.

A committee appointed to assess the likely outcome of the event has come up with the following data from the club's records:

| Number of tickets sold | Number of past events |
|------------------------|-----------------------|
| 2,500 to 3,500 | 4 |
| 3,501 to 4,500 | 6 |
| 4,501 to 5,500 | 8 |
| 5,501 to 6,500 | <u>2</u> |
| | <u>20</u> |

| Number of events programme pages sold | Number of past events |
|---------------------------------------|-----------------------|
| 240 | 4 |
| 320 | 8 |
| 400 | 6 |
| 480 | <u>2</u> |
| | <u>20</u> |

Required:

- (i) The expected profit from the event. (Assume one raffle ticket and one photograph per attendant). (10 marks)
- (ii) Describe how cost-volume-profit (C-V-P) analysis can be applied in absorption costing. (6 marks)