# TECHNICAL UNIVERSITY OF MOMBASA 

School of business

## DEPARTMENT OF ACCOUNTING AND FINANCE

UNIVERSITY EXAMINATIONS FOR DEGREE IN BACHELOR OF / COMMERCE/ BUSINESS ADMINISTRATION.

## BAC 4203; MANAGEMENT ACCOUNTING

END OF SEMESTER EXAMINATIONS

SERIES; DECEMBER 2015

TIME; 2 HOURS

## Instructions;

Answer question one and any other two questions.

## Question One.

(a) Budgeted sales and cost of two companies are provided as follows::

| Companies | Holes | Boxer |
| :--- | :--- | :---: |
| Sales (units) | 10,000 | 10,000 |
| Selling price (shs. | 2 | 2 |
| Variable cost / unit | 1.25 | 1.00 |
| Total fixed cost (shs) | 5,500 | 8,000 |
| Capacity | $80 \%$ | $80 \%$ |


| Required | i) | Budgeted profits | (4 marks) |
| :--- | :--- | :--- | :--- |
|  | ii) | Budgeted Break-even point in shillings | (4 marks) |
| iii) | Show the impact of increasing or decreasing sales by a 10\% |  |  |
|  |  | margin. | (6 marks) |

iv) Margin of safety as a percentage of total capacity. (6 marks)
(b) Jamaica International Ltd. Manufacturing posho mills. One of the parts required during the manufacturing process is component Q . Currently component Q is manufacture in department $X$ of the company. During the preceding twelve months, 150,000 units of component Q were manufactured at the following costs to the division

Shs

Direct materials

Direct wages

Manufacturing overheads

200,000

150,000

400,000

The company has received an offer from Maneno Enterprises to purchase component Q at shs 4 per unit instead of manufacturing it internally.

## Additional Information

1. Twenty five percent of the manufacturing overheads for component Q are variable.
2. Of the fixed overheads, shs 150.000 represents an allocation of general overheads, which would be incurred by Jamaica International Ltd whether the company purchases component Q or manufactures it internally. The balance of fixed overheads represents apportionments of administrative costs.

## Required:

i) Advice Jamaica International Ltd on whether to manufacture component

Q internally or purchase it from Maneno Enterprises. [6 marks]
ii) Explain four factors, other than costs, that may influence the decision on whether Jamaica International Ltd should accept the offer from Maneno Enterprises. [ 4 marks)

## Question two.

The following data were taken from the cost and production records of a company for the months of June and July 2007.

## Data per unit

Selling price

Direct material cost

Direct labour cost

Variable production overheads

## Monthly costs

Fixed production overheads
99,000

Fixed selling 15,000

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Fixed administrative expenses
Variable selling costs are 10 percent of sales revenue
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|  | Sales | Production |
| :--- | :--- | :--- |
|  | (Units) | (Units) |
| June | 10,000 | 12,000 |
| July | 12,000 | 10,000 |
| Required |  |  |

Prepare profit statements for the months of June and July using:
i) Variable costing method [10 marks]
ii) Full costing method [10 marks]

## Question three.

Super sales International is the exclusive distributor for a revolutionary book bag. The product sells for sh. 40 per unit. Variable costs are sh. 28 per book bag and fixed expenses associated with the book bag total sh. 150,000 per month. The company is currently selling 15,000 book bags month. (Note: each question is independent of each other).

## Required:

i) What is the monthly break-even point in units sold and in sales? [5 marks]
ii) What is the total contribution margin at the break-even point? [5 marks]
iii) How many units would have to be sold each month to earn a minimum target profit of sh. 18,0000 ?
iv) Compute the company's margin of safety in both dollar and percentage terms.
[3 marks]
v) If monthly sales increases by $\$ 80,000$ and there is no change in fixed expenses, by how much would you expect monthly net operating income to increase?

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[3 marks]
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## QUESTION Four.

The standard mix of product M5 is as follows:

| Weight | Material | Price per <br> Kgs (Shs) |
| :--- | :--- | :---: |
| 50 | A | 5 |
| 20 | B | 4 |
| 30 | C | 10 |

The standard loss in production is $10 \%$ of input. There is no scrap value. Actual production for a month was 7240 K of M5 from 80 mixes. Actual purchases and consumption of material during the month were:

| Kgs | Material | Price per Kg (shs) |
| :--- | :--- | :--- |
| 4160 | A | 5.50 |
| 1680 | B | 3.75 |
| 2560 | C | 9.50 |

Calculate:
(i) Material cost variance
(ii) Material price variance (10 Marks)

Beta Co produces 3 products, $\mathrm{E}, \mathrm{F}$ and G , details of which are shown below:

|  | E | F | G |
| :--- | :---: | :---: | :---: |
|  | sh. | sh. | sh. |
| Selling price per unit | 120 | 110 | 130 |
| Direct material cost per unit | 20 | 40 | 50 |
| Direct labour | 15 | 10 | 20 |
| Variable overheads( machining cost) | 25 | 20 | 15 |


| Maximum demand (units) | 30,000 | 25,000 | 40,000 |
| :--- | :---: | :---: | :---: |
| Machine hours | 5 | 4 | 3 |
| resource (hours per unit) |  |  |  |

There are 320,000 bottleneck hours available each month.
Required:
Calculate the optimum product mix each month (15 marks)

## QUESTION five.

Mercury Motor Parts Manufacturers Ltd produce various motor parts. The cost structure of a part whose annual production is 90,000 units is as follows:

## Shs

Materials
Labour (25\% fixed)
Expenses:-

| Variable | 180 per unit |
| :--- | :--- |
| Fixed | $\underline{270}$ per unit Total |
|  | $\underline{\underline{350}}$ |

The purchasing manager explores that a supplier is ready to supply the part at shs. 1080.
(i) Should the part be purchased and production stopped? (5 marks)
(iii) What will be your advice if the resources producing that part are used to produce a product for which the selling price is shs. 965 . In this case material price will be shs. 190 per unit. (10 marks)
(iv) Briefly explain the term Transfer pricing and describe its main objectives. (5 marks)

