



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

**A. M. E. C. E. A**

**MAIN EXAMINATION**

**MAY – JULY 2016 TRIMESTER**

**FACULTY OF COMMERCE**

**DEPARTMENT OF ACCOUNTING AND FINANCE**

**REGULAR PROGRAMME**

**CAC 311: INTRODUCTION TO MANAGEMENT ACCOUNTING**

**Date: JULY 2016**

**Duration: 2 Hours**

**INSTRUCTIONS: Answer Question ONE and ANY OTHER TWO Questions**

- Q1. a) The central purpose of management accounting is to provide management with information requires to direct the internal affairs of an organization. Describe any FOUR attributes of good management accounting information. **(4 marks)**
- b) PQR is a manufacturer of sports shoes. The standard cost per pair of sports shoes is as follows

|   | Shs   |
|---|-------|
| Direct materials                        | 500   |
| Direct labour: 4 hours x sh 60 per hour | 240   |
| Production overheads                    |       |
| Variable 4 hours x sh 30 per hour       | 120   |
| Fixed                                   | 100   |
| Standard production cost                | 960   |
| Standard selling price                  | 1,500 |

Additional information

During the month production was 10,000 units as planned but sales made were 8,000 units

Other costs incurred during the month were as follows

|                         | Variable     | Fixed     |
|-------------------------|--------------|-----------|
| Selling ad distribution | 20% of sales | 600,000   |
| Administration          |              | 1,000,000 |

Required

- i Absorption costing statement. **(4 marks)**
  - ii Marginal costing statement **(4 marks)**
  - ii Reconciliation statement of the differences between the profit or loss under absorption costing and marginal costing above. **(2 marks)**
- c) Tremendous company provided the following information regarding the company's operations for year ended 30/06/2016

|                               | 2015       | 2016       |
|-------------------------------|------------|------------|
| Sales shs                     | 25,000,000 | 20,000,000 |
| Profit as percentage of sales | 10%        | 8%         |

Required

- i Fixed costs **(3 marks)**
  - ii Break even point **(3 marks)**
  - iii Margin of safety at a profit of sh 270,000 **(2 marks)**
  - iv The sales value at which profit of sh 475,000 will be achieved. **(2 marks)**
  - v Amount of profit if sales is sh 30,000,000 **(2 marks)**
- d) Briefly explain the term 'limiting factor' as used in CVP analysis. **(2 marks)**
- e) Explain the following costing terms as used in management accounting.
- Cost **(1 mark)**
  - Cost unit **(1 mark)**
  - Cost centre **(1 mark)**
- Q2. a) State and briefly explain any FIVE assumptions underlying the break-even theory. **(5 marks)**
- b) Explain the advantages and disadvantages of the high-low method of cost estimation. **(5 marks)**
- c) Central Machinery Ltd is preparing its budget for the year ending 30 June 2014. For the fuel expenses consumption it is decided to estimate an equation of the form  $y = a + bx$  where  $y$  is the total expense at an activity level  $x$ ,  $a$  is the fixed expense and  $b$  is the rate of variable cost.

| Month     | Machine hours | Fuel oil expense | Month 2016 | Machine hours | Fuel oil expense |
|-----------|---------------|------------------|------------|---------------|------------------|
| 2013      |               | (Sh '000')       | 2004       |               | (sh.'000')       |
| July      | 34            | 640              | January    | 26            | 500              |
| August    | 30            | 620              | February   | 26            | 500              |
| September | 34            | 620              | March      | 31            | 530              |
| October   | 39            | 590              | April      | 35            | 550              |
| November  | 42            | 500              | May        | 43            | 580              |
| December  | 32            | 530              | June       | 48            | 680              |

The annual total monthly average figures for the year ended 30 June 2013 were as follows

|                 | Machine hours | Fuel oil expense |
|-----------------|---------------|------------------|
|                 | ('000')       | (sh'000')        |
| Annual total    | 420           | 6,840            |
| Monthly average | 35            | 570              |

Required

- i Using the high-low method estimate and interpret the fixed and variable cost elements of fuel oil expense. **(5 marks)**
- ii Using the results in (i) above predict the fuel expense for November 2014 if experience indicates that 41,000 machine hours will be used. **(2 marks)**
- iii By using simple linear regression analysis it is established that the coefficient of determination arising from the data is approximately 0.25. Interpret the significance of this fact. **(3 marks)**

Q3. Auto-Generators Ltd is a local company that manufactures three types of automotive generators namely Exe, Wye and Zed. The management is unhappy about the current production mix and is seeking advice on the most optimal arrangement. Current production is 100,000 units of Exe, 50,000 units of Wye and 60,000 units of Zed. The data relating to production costs for each of the generators are given below

|                   | Exe   | Wye   | Zed   |
|-------------------|-------|-------|-------|
| Production costs  | sh    | sh    | Sh    |
| Direct material   | 3,000 | 9,000 | 6,000 |
| Variable overhead | 1,500 | 4,000 | 4,500 |

Additional information

- i Each type of generator passes through three departments I which a different type of labour is used. The labour requirements in each department are given below

ii

| Department | Rate per hour<br>sh | Labour requirement (hours) |     |     |
|------------|---------------------|----------------------------|-----|-----|
|            |                     | Exe                        | Wye | Zed |
| 1          | 200                 | 3                          | 4   | 6   |
| 2          | 400                 | 1                          | 2 ½ | 4   |
| 3          | 300                 | 5                          | 7   | 9   |

- iii There is a shortage of labour in department 2 and it is not possible to increase labour input hours beyond the level currently utilized.
- iv Fixed overheads are budgeted at sh 500,000,000 per annum and they are expected to remain constant.
- v Market prices are currently sh 12,000 for Exe sh 20,000 for Wye and sh 22,500 for Zed.
- vi A recent market survey disclosed that maximum sales potential for the company is 125,000 units of Exe, 75,000 units of Wye and 80,000 units of Zed.

Required

- a) Determine the profit made on the current production mix **(7 marks)**
- b) Determine the most profitable production mix that should be adopted by the company. **(7 marks)**
- c) Calculate the expected profit if the production mix in (b) above is adopted by the company. **(3 marks)**
- d) Which other considerations may be necessary before adoption of the change in production mix? **(3 marks)**
- Q4. a) State the objectives of budgetary planning and control systems. **(3 marks)**
- b) Identify the limitations of using budgeting systems to regulate business activities **(5 marks)**
- c) Kunda Limited manufactures one standard product. Currently it is operating at a normal activity level of 70% with an output of 6,300 units, although the sales director believes that a realistic forecast for the next budget period would be at a level of activity of 50%

|                                    | 60%     | 70%     | 80%     |
|------------------------------------|---------|---------|---------|
|                                    | Sh      | sh      | sh      |
| Direct materials                   | 37,800  | 44,100  | 50,400  |
| Direct wages                       | 16,200  | 18,900  | 21,600  |
| Production overheads               | 37,600  | 41,200  | 44,800  |
| Administrative overheads           | 31,500  | 31,500  | 31,500  |
| Selling and distribution overheads | 42,300  | 44,100  | 45,900  |
| Total cost                         | 165,400 | 179,800 | 194,200 |

Profit is 20% of selling price

Required

- i Prepare a flexible budget based o 50% level of activity. **(9 marks)**
- ii State THREE problems which may arise from such a change in the level of activity. **(3 marks)**

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