



# MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BANKING, ACCOUNTING & FINANCE

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF COMMERCE (ACCOUNTING OPTION)

BAC 404: COST ACCOUNTING II

DATE: 9/5/2019

TIME: 2.00-4.00 PM

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## INSTRUCTIONS:

- i) Answer question one and any other two questions.
- ii) Marks allocated for each question are shown at the end of the question.
- iii) Show your working where necessary.

## QUESTION ONE (COMPULSORY): 30 MARKS

- a) Briefly discuss **four (4)** differences between process costing and job order costing (8 marks)
- b) Explain TWO salient characteristics of batch costing. (4 marks)
- c) Suppose a company has the following costs with a quantity of 7000 units;

|                            | Amount (Ksh.)         | Variable cost<br>(Ksh.) | Fixed cost (Ksh.)    |
|----------------------------|-----------------------|-------------------------|----------------------|
| Direct labour              | 150,000               | 150,000                 | -                    |
| Materials                  | 125,000               | 125,000                 | -                    |
| Repairs and<br>Maintenance | 5,000                 | 5,000                   | -                    |
| Depreciation               | 15,000                | -                       | 15,000               |
| Administration             |                       |                         |                      |
| Overheads                  | 1,000                 | -                       | 1,000                |
| Indirect labour            | <u>4,000</u>          | -                       | <u>4,000</u>         |
|                            | <u><b>300,000</b></u> | <u><b>280,000</b></u>   | <u><b>20,000</b></u> |

**Required:**

Determine the cost equation (in the form of  $Y = a + bX$ ) using account analysis method and determine the cost of producing 1,400 units. (5 marks)

- d) Mtwapa Limited sells Rollum at the rate of 500 per day throughout a working year of 250 days. The product is normally purchased by Mtwapa Ltd ready for sale at Ksh. 70 per unit. Investigations have shown that Rollum can be made at the rate of 800 units per day in a part of the factory presently unoccupied. The direct costs per unit are as follows:

|                    | Ksh.  |
|--------------------|-------|
| Direct materials   | 12.50 |
| Labour cost        | 5.00  |
| Variable overheads | 22.50 |

The set-up cost per batch is estimated to be Ksh. 6,000, and stock holding cost percentage is 25% per annum.

**Required:** Calculate;

- i) Economic Batch Quantity (EBQ) for the company
  - ii) The total cost associated with the EBQ computed in (i) above
  - iii) State TWO major assumptions of EBQ (7 marks)
- e) Discuss THREE differences between Cost reduction and Cost control. (6 marks)

**QUESTION TWO (20 MARKS)**

Oxfam limited produces product Jay in three processes. During the month of August 2009, 5,000 units were transferred from process one at a cost of sh. 37 per unit

In addition the following costs were incurred in process two;-

|                    | Sh.    |
|--------------------|--------|
| Direct materials   | 44,906 |
| Labour cost        | 86,400 |
| Variable overheads | 61,800 |

At the beginning of the month there was opening stock of work in progress of 600 units which were complete as follows;-

|                          |      |        |
|--------------------------|------|--------|
| Materials from process I | 100% | 18,900 |
| Material added           | 60%  | 3,600  |
| Labour                   | 30%  | 8,100  |
| Overheads                | 30%  | 2,700  |

Work in progress at the end was 1000 units complete as follows

|                          |      |
|--------------------------|------|
| Materials from process I | 100% |
| Materials added          | 75%  |
| Labour                   | 40%  |
| Overheads                | 20%  |

While normal loss is expected to be 10% of input, 800 units were actually scrapped and were sold for sh. 10 per unit

The company uses first and first out (FIFO) method of accounting for work in progress

**Required;** Prepare process 2 account

### QUESTION THREE (20 MARKS)

At the start of the year, no jobs were in process. During the year, job number 2.1, 2.2 and 2.3 were started; materials were purchased at a cost of sh. 100,000. Materials worth Sh. 75,000 were used of which Sh. 70,000 were direct. (Sh. 10,000 on job 2.1, Sh. 40,000 on job 2.2 and the balance on job 2.3). Labour costs worth Sh. 250,000 were incurred of which Sh. 220,000 was direct labour (Sh. 80,000 on job 2.1, Sh. 75,000 on job 2.2 and the balance on job 2.3). Other manufacturing overhead costs of Sh. 72,800 were incurred; manufacturing overheads are applied to production on the basis of direct labour costs. Estimated manufacturing overhead for the year was Sh. 100,000 and estimated direct labour cost for the year was Sh. 200,000. Jobs 2.2 and 2.3 were completed with job 2.3 being sold for Sh. 200,000.

**Required:**

- Pass the necessary journal entries to record the above transactions.
- Prepare a costing, profit and loss account for the period above.

#### QUESTION FOUR (20 MARKS)

More Ltd is a medium sized manufacturing company which maintains separate cost and financial accounting books. The financial accountant provided the following statement for the year ended 31 December 2016.

| <b>More Limited</b>                                                                           |                  |                     |
|-----------------------------------------------------------------------------------------------|------------------|---------------------|
| <b>Manufacturing, trading and Profit and Loss Account for the year ended 31 December 2016</b> |                  |                     |
|                                                                                               | <b>Sh. “000”</b> | <b>Sh. “000”</b>    |
| <b>Direct Materials:</b>                                                                      |                  |                     |
| Opening stock                                                                                 | 150              |                     |
| Purchases                                                                                     | <u>1,800</u>     |                     |
|                                                                                               | 1,950            |                     |
| Closing stock                                                                                 | <u>200</u>       |                     |
| Direct material cost                                                                          | 1,750            |                     |
| Direct wages                                                                                  | <u>250</u>       |                     |
| Prime cost                                                                                    |                  | 2,000               |
| Factory overheads                                                                             |                  | <u>300</u>          |
|                                                                                               |                  | 2,300               |
| Opening work - in – progress                                                                  |                  | <u>125</u>          |
|                                                                                               |                  | 2,425               |
| Closing stock                                                                                 |                  | <u>130</u>          |
| <b>Production cost</b>                                                                        |                  | <b><u>2,295</u></b> |
| Sales                                                                                         |                  | 4,500               |
| <b>Cost of goods sold:</b>                                                                    |                  |                     |
| Opening stock                                                                                 | 240              |                     |
| Production cost                                                                               | <u>2,295</u>     |                     |
|                                                                                               | 2,535            |                     |
| Closing stock                                                                                 | <u>255</u>       |                     |
| <b>Gross profit</b>                                                                           |                  | 2,220               |
| Other incomes:                                                                                |                  |                     |
| Discount received                                                                             | 45               |                     |
| Income from investment                                                                        | 1,094            | <u>1,139</u>        |
|                                                                                               |                  | 3,359               |

|                         |            |                     |
|-------------------------|------------|---------------------|
| Expenses:               |            |                     |
| Depreciation            | 280        |                     |
| Interest on loan        | 36         |                     |
| Debenture interest      | 25         |                     |
| Administrative expenses | <u>600</u> | <u>941</u>          |
| <b>Net Profit</b>       |            | <b><u>2,418</u></b> |

The records from cost accounts showed the following:

1. Stock valuation as at 31 March were as follows:

|                     | <b>2015</b>      | <b>2016</b>      |
|---------------------|------------------|------------------|
|                     | <b>Sh. “000”</b> | <b>Sh. “000”</b> |
| Raw Materials       | 160              | 196              |
| Work- in – Progress | 121              | 125              |
| Finished goods      | 258              | 260              |

2. Factory overheads were absorbed at 15% of direct material cost

3. Other costs included:

|                                               | <b>Sh. “000”</b> |
|-----------------------------------------------|------------------|
| Interest on capital                           | 140              |
| Notional rent                                 | 420              |
| Administration expenses over-absorbed         | 32               |
| Selling & Distribution expense over- absorbed | 25               |
| Depreciation                                  | 242              |

4. Profit as per cost statement was Sh. 2,328,400.

**Required:**

Prepare a profit reconciliation statement for the year ended 31 December 2016.

### QUESTION FIVE (20 MARKS)

- a) ABC Dental Clinic outsources specialized dental surgeons from private hospitals. The following relates to the total labour hours and labour costs for the year ended 31 December 2016.

| Month     | Labour Cost (Sh.) | Labour hours |
|-----------|-------------------|--------------|
| January   | 11,900            | 680          |
| February  | 12,110            | 880          |
| March     | 10,040            | 620          |
| April     | 9,170             | 720          |
| May       | 7,700             | 600          |
| June      | 14,560            | 960          |
| July      | 11,800            | 780          |
| August    | 7,100             | 460          |
| September | 13,160            | 820          |
| October   | 10,320            | 940          |
| November  | 7,520             | 680          |
| December  | 9,630             | 480          |

**Required:**

- i) Equation in the form of  $Y = a + bX$  using the regression method.
- ii) Total labour cost for outsourcing 980 labour hours (10 marks)
- b) Explain TWO functions of a cost accountant. (4 marks)
- c) Explain THREE preliminary arrangements to be made in the cost accounting department before installing machines. (6 marks)