

## UNIVERSITY EXAMINATIONS

## EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR

 OF EDUCATION ARTS
## BCOM 314: MANAGEMENT ACCOUNTING I

STREAMS: BED (ARTS)
TIME: 2 HOURS
DAY/DATE: MONDAY 17/12/2018
2.30 P.M. - 4.30 P.M.

INSTRUCTIONS:

- Answer question ONE and any other TWO
- Do not write on the question paper


## QUESTION ONE

(a) Distinguish between the following terminologies as used in management accounting
(i) Cost centre and revenue centre
(ii) Relevant costs and irrelevant costs
(iii) Product costs and period costs [2 marks]
(iv) Cost unit and unit cost
(b) Dawa ltd manufactures a single type of a liquid chemical. The company's production overheads vary with the volume of production in litres. The volume of production and the amount of overheads for 10 months ended on $31^{\text {st }}$ October 2018 were as presented below

| Month | JAN | FEB | MARC <br> H | APR | MAY | JUNE | JULY | AUG | SEP | OC <br> T |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Volume of <br> production <br> overheads (litres) | 150 | 120 | 200 | 170 | 120 | 250 | 220 | 90 | 180 | 300 |
| Production <br> overheads (sh) | 180 <br> 0 | 1400 | 2300 | 1900 | 1600 | 3000 | 2700 | 1100 | 240 | 320 |
| 0 |  |  |  |  |  |  |  |  |  |  |

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## Required:

(i) Estimate the cost function using high-low method
(ii) Estimate the cost function using regression analysis method
(iii) Using regression analysis cost function estimate the production overheads for the month of December of the volume if production overheads were 245 litres [2 marks]
(c) The management of ABC ltd is planning to sell badges in the forthcoming Nairobi show at sh. 9 each. Each badge costs sh. 5 to produce and the company will incur sh. 2000 to rent a booth in the showground

## Required:

(i) Compute the break-even points in units and in shillings
(ii) Determine the margin of safety in units if 600 badges are sold
(iii) Compute the number of badges that must be sold to earn an after tax profit of sh 1640 assuming the tax rate is $40 \%$
(d) State any two limitations of CVP analysis

## QUESTION TWO

(a) Sanders ltd is a manufacturing company that produces and sells a single product "P8IR". In constant price level terms, its unit cost structure is as follows

## Sh.

Direct materials 3
Direct labour 2
Variable manufacturing overheads 1
Variable selling cost 1
Selling price per unit 10

- Fixed manufacturing cost is sh 25000 per period
- Fixed selling and administration cost is sh. 5000 per period
- The following information has been provided for the year 2017

| Opening stock | 3000 | units |
| :--- | ---: | :--- |
| Production | 19000 | units |
| Sales for the period | 21000 | units |
| Closing stock | 1000 | units |

## Required:

Assuming the cots characteristics of all units are the same as the 19000 units produced prepare:
(i) Profit and loss statement under marginal costing technique
(ii) Profit and loss statement under absorption costing technique
(iii) Reconciliation of the profit/loss obtained under the two methods
(b) Discuss any three key differences between management accounting and financial accounting

## QUESTION THREE

(a) Timao company ltd produces product Q 482 that passes through three processes $\mathrm{X}, \mathrm{Y}$ and Z. The normal wastage of each of the processes is $3 \%, 5 \%$ and $8 \%$ for $\mathrm{X}, \mathrm{Y}$ and Z respectively. Scraps of process X are sold at 25 cts per unit, those of process Y at 50 cts per unit and that of $Z$ at sh. 1 per unit.

10,000 units were issued to process X at the beginning of November 2017 at a cost of sh. 1 per unit. The other expenses incurred were as follows

|  | Process X | Process Y | Process Z |
| :--- | :---: | :---: | :---: |
| Additional materials (sh) | 1000 | 1500 | 500 |
| Direct labour $(\mathrm{sh})$ | 5000 | 8000 | 6500 |
| Direct expenses | 1050 | 1188 | 2009 |
| Actual output | 9500 units | 9100 units | 8100 units |

There were no stocks of materials or work in progress at the beginning or the end of the month. The output of each process is directly passed to the next process and finally to the finished goods stock account.

## Required:

(i) Process accounts for processes $\mathrm{X}, \mathrm{Y}$ and Z
(ii) Abnormal loss account
(iii) Abnormal gain account

## QUESTION FOUR

(a) PAMAC Ltd has been manufacturing and selling products in Mombasa. The market demand for the products on average has been as follows:

| Annual demand in units | 20000 | 25000 | 43000 |
| :--- | :--- | :--- | :--- |
| Machine hours/unit | $1 / 2 \mathrm{hrs}$ | $3 / 4 \mathrm{hrs}$ | $1 / 3 \mathrm{hrs}$ |

The following information relates to each unit of the products $\mathrm{P}, \mathrm{Q}$ and R produced

|  | P | Q | R |
| :--- | :---: | :---: | :---: |
| Direct materials | 15 | 12 | 14 |
| Direct labour | 25 | 20 | 14 |
| Variable manufacturing overheads | 7 | 5 | 8 |
| Selling price | 60 | 48 | 50 |

The company can only manage to get a maximum of 30,000 machine hours per annum

## Required:

(i) Advise the management on the most profitable product mix
[6 marks]
(ii) If the fixed cost of the company is ksh 200,000 what would be the maximum profit obtained from the optimum product mix [3 marks]
(b) XYZ ltd manufactures and sells a product branded as T28V. The standard production costs of the product per unit are as follows

|  | Sh. |
| :---: | :---: |
| Material X -25 metres @ sh. 1/metre | 25 |
| Y-10 kg @ sh. $4 / \mathrm{kg}$ | 40 |
| Labour: Direct labour - $10 \mathrm{hrs} @$ sh $12.5 / \mathrm{hr}$ | 125 |
| Overheads: Variable sh. 2.5/hr | 25 |
| Fixed sh. 3/hr | 30 |

The overheads are absorbed on the basis of direct labour hours
The budgeted production for the year was 3500 units
During the year ended $31^{\text {st }}$ December 2017, 4000 units of output were produced and the actual costs were as follows:

|  | Shs. |
| :--- | ---: |
| Direct material X -96000 metres | 86,400 |
| $\quad$ Y -31500 kg | 124425 |
| Direct labour 31000 hrs | 410750 |
| Overheads: Fixed | 151060 |
| $\quad$ Variable | 143800 |

## Required:

(i) Material price and usage variances [3 marks]
(ii) Labour rate and efficiency variances [3 marks]
(iii) Total variable overhead cost variance [3 marks]
(iv) Fixed overhead volume variance
[2 marks]

