# 2009/2010 ACADEMIC YEAR FOR THE DEGREE OF BACHELOR OF COMMERCE 

## COURSE CODE: ACCT 314

## COURSE TITLE: COST ACCOUNTING

STREAM:
DAY:
TIME:
DATE:
04/12/2009

## INSTRUCTIONS

$\bar{\beta}$ Answers ANY FOUR questions. Be neat and orderly. Show all the workings for they shall be awarded marks. All question carry equal marks.
B Time allowed Two hours. Marks are shown at the end of each question.

## OUESTION ONE:

Molo ltd which is trying to estimate its cost model provides you with the following records of employees' costs and the number of employees for the following years:

| Year | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Employees costs (Ksh.000s ) | Ksh. 395 | $\mathbf{4 2 5}$ | $\mathbf{3 7 0}$ | $\mathbf{4 1 0}$ | $\mathbf{4 5 5}$ | $\mathbf{4 9 0}$ | $\mathbf{3 9 0}$ |
| Total number of employees <br> $(000$ s $)$ | $\mathbf{2 8 0}$ | $\mathbf{3 5 5}$ | $\mathbf{2 5 0}$ | $\mathbf{3 2 5}$ | $\mathbf{3 6 5}$ | $\mathbf{4 0 0}$ | $\mathbf{3 1 0}$ |

## Required:

a) Draw a graph showing the relationship between years and employees costs. [4mks]
b) Estimate the cost function ( $\mathrm{y}=\mathrm{a}+\mathrm{bx}$ ) under Least square method [10mks]
c) Estimate the cost function ( $\mathrm{y}=\mathrm{a}+\mathrm{bx}$ ) under two-point method [3mks]
d) Using the least square cost equation, compute the point estimate of costs if 500,000 employees will be used in the year 2009.
[2mks]
e) Explain six steps the management of Molo ltd can use to estimate the cost function. [6mks].

## QUESTION TWO:

The manager of Unga ltd the manufacturer of cooking flour is seeking your assistance concerning full and variable costing. The following information is available from their records for the years 2001 to 2006:

|  | Ksh. |
| :--- | :---: |
| Selling price per kilogram of flour | 40. |
| Budgeted fixed costs per year (period) | 1200000 |
| Variable costs per kilogram: |  |
| Direct materials | 12 |
| Direct labour | 6 |
| Variable overheads | 6 |

The budgeted activity was expected to average 600000 units per year, and production and sales for each year were as follows:

| Years |  | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kilograms sold | $(000 ' s)$ | 600 | 480 | 720 | 600 | 560 | 640 |
| Kilogram produced | (000's) | 600 | 600 | 600 | 600 | 680 | 560 |

There were no opening stocks at the beginning of the year 2001, and the actual manufacturing fixed overheads incurred was Ksh. 1200000 per period. In addition actual non manufacturing overheads were Ksh. 400000 per year.
Required to prepare profit statements for the years 2001 and 2002 under:
(a) Absorption costing (11mks)
(b) Marginal costing. (10mks)
(i). Draft reconciliation statements for the above profits in (a) and (b). (4mks)

## QUESTION THREE:

Assume Bread ltd uses two processes that is forming in department A and finishing in department $B$. Direct materials are introduced at the beginning of the process at department A and additional direct materials are added at the beginning of the process in department B .

Conversion costs are applied evenly throughout both processes. As goods are completed in process $A$, they are transferred to process $B$ and when complete in process $B$, they are transferred to the finished goods inventory.

## Data for department ' $A$ ' for the recently completed period is given below:

- Opening work in process ( $40 \%$ complete) 20000 units. This opening working in process consists of direct materials costing Ksh.8, 000 and conversion costs of Ksh.10, 220.
- Units completed and transferred out 90, 000 units.
- Units started during the period 80000 units.
- Ending work in process ( $50 \%$ complete) 4000 units.
- The normal loss is $10 \%$ of production is anticipated and the spoiled units realized Sh. 4 each.
Costs incurred during the current period were: material inputs Ksh. 44 000, direct labour Ksh. 12000 and fixed overheads Ksh. 24000.


## Required

(a) Prepare the production report for department (A) using first in first out (FIFO) method. (13mks)
(b) Prepare journal entries for the above information ( $\mathbf{6 m k s}$ )
(c) Prepare relevant ledger accounts for the situation in (b) above. (6mks).

## QUESTION FOUR:

ABC Ltd the manufacturer of Mushroom stew provides you with the following information for the month of July 2009.

## The standard cost per a kilogram of mushroom stew is as follows:

i ) Direct materials 50 litres at $\$ 30$ per litre
ii ) Direct labour 30 hours at $\$ 50$ per hour
iii ) Variable overhead 30 hours at $\$ 40$ per hour
iv ) Fixed overhead 30 hours at $\$ 100$ per hour
For the month July 2007, the actual results from its operations were as follows:
i ) Budgeted output of mushroom stew....... 20,000 kilograms.
ii ) Actual output of mushroom stew........... 18,000 kilograms
iii ) Opening stock of direct materials............... 30,000 litres
iv ) Direct raw materials purchased........ 100,000 litres costing a total of \$280,000
v ) Closing stock of direct materials...................30,000 litres.
vi ) Actual labour costs...................... 55,000 hours costing \$ 266, 000

## Required

a) Compute the budgeted cost of making one kilogram of mushroom stew ( $\mathbf{3 m k s}$ )
b) Calculate the following variances:
i) Direct material price variance
ii) Direct material usage variance
iii) Direct labour rate variances
iv) Direct labour efficiency variance
(4 mks) ( 4 mks ) ( 3 mks )
(3 mks)
c) State any two typical causes for each of the above variances. ( $\mathbf{8} \mathbf{~ m k s}$ ).

## OUESTION FIVE:

The following information was extracted from Sunflower ltd. The contribution margin per computer was budgeted at sh. 40 while variable cost per computer at sh. 60 . Fixed production costs are budgeted at sh. 400,000 while fixed selling and administrative costs at sh.200, 000 .

## Required:

a) Using the above information, draw the contribution break even chart. Comment on the diagram. (4mks)
b) Compute the number of computers that must be sold to break even. (3mks)
c) Calculate the break even sales value ( $2 \mathbf{m k s}$ ).
d) Suppose the company intends to sell 50,000 computers, compute the margin of safety. (2mks)
e) If the company intends to make a profit before tax of sh. 5000 , determine the number of computers that must be sold and the sales value in shillings. ( 4 mks ).
f) Assume the corporate tax rate is $50 \%$ and the company has a profit target of sh.50, 000 after tax. Compute the number of computers that must be sold to attain the target. ( $\mathbf{4 m k s}$ )
g) Clearly explain any six assumptions of the cost volume profit analysis. (6mks)

