TECHNICAL UNIVERSITY OF MOMBASA

## SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING \& FINANCE
UNIVERSITY EXAMINATION FOR:
BACHELOR OF COMMERCE II
BACHELOR OF IN BUSINESS ADMISTRATION II

BAC 4201: COST ACCOUNTING<br>END OF SEMESTER EXAMINATION

SERIES: AUGUST, 2019
TIME: 2HOURS
DATE: AUGUST, 2019

## Instructions to Candidates

You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of FIVE questions. Attempt question ONE (Compulsory) and any other TWO questions.
Do not write on the question paper.

## Question One

a) Mbano Ltd. manufactures and retails three products namely; A, B and C. The company employs 60 direct workers who work under a group bonus scheme. The company engages three grades of workers who are paid a bonus on the excess of time allowed over time taken. The bonus is paid at $75 \%$ of time saved at the workers' base rate and is shared by the workers in proportion to the time spent on the work.

The following production data has been extracted from the company's records for the month of October 2018:

| Product | Units produced | Time allowed per unit (minutes) |
| :--- | :---: | :--- |
| A | 320 | 63 |
| B | 640 | 120 |
| C | 1,200 | 100 |


| Grade of worker | Number of direct workers | Rate | Hours worked per worker |
| :--- | :--- | :--- | :---: |
| 1 | 20 | 300 | 30 |
| 2 | 8 | 270 | 64 |
| 3 | 32 | 240 | 50 |

## Required:

i) Percentage of hours saved to hours worked
ii) Bonus due to the group
iii) Gross earnings due to the group
(4 Marks)
(4 Marks)
(4 Marks)
(b) The following details were extracted from the stores ledger card of a small manufacturing company during the month of November 2018.

## Date

1 Opening stock - 400 units valued at sh. 1600
4 Received 200 units @sh. 5 each
10 Issued 500 units @sh. 12
16 Received 300 units @sh. 6 each
20 Issued 300 units @sh. 14
24 Received 400 units @sh. 7 each
30 Issued 200 units @sh. 15

## Required:

(i) Prepare a stores ledger card for the month of November 2018 using FIFO method.
(ii) Prepare a trading account for the month.
( 12 marks)
(c) Discuss SIX factors that are considered when setting stock levels.

## Question Two

(a) Safari Ltd manufactures three products namely; X, Y and Z. Each product is started in the machine area completed in the finishing shop.

The direct costs associated with each product forecast for the financial period ending $30^{\text {th }}$ June 2017 are as follows:

|  | X | Y | Z |
| :--- | :--- | :--- | :--- |
|  | Sh. | Sh. | Sh. |
| Materials | 37 | 30 | 45 |
| Wages: |  |  |  |
| Machine area Sh. 10 per hour | 20 | 10 | 20 |
| Fishing shop Sh. 8 per hour | $\underline{\underline{\mathbf{6 9}}}$ | $\underline{8}$ | $\underline{\underline{48}}$ |
| Total | $\underline{\underline{84}}$ | $\underline{\underline{\mathbf{8 1}}}$ |  |

Additional information:

1. There are machines in both departments and machine hours required to complete one of each product as follows:

| Product | Machine Area | Fishing shop | Budget output |
| :--- | :--- | :--- | :--- |
|  | Hours | Hours | Units |
| X | 8 | 1 | 12,000 |
| Y | 3 | 1 | 16,000 |
| Z | $\underline{6}$ | $\underline{\underline{\mathbf{4}}}$ | $\underline{\underline{4,000}}$ |
|  | $\underline{\underline{\mathbf{4}}}$ | $\underline{\underline{2,000}}$ |  |

2. The fixed overheads for the machine area amount to Sh. 202,600.
3. The fixed overheads for the finishing shop amount to Sh. 189,000.

## Required:

For each department, compute:
a) fixed overheads absorption rate using:

| i) | Labour hours | (5 Marks) |
| ---: | :--- | :--- |
| ii) | Machine hours | (5 Marks) |

b) The total cost for each product using :
i. The labor rate (5 Marks)
ii. The machine hour rate (5 Marks)
(b) Discuss five differences between cost accounting and financial accounting (10 Marks)

## Question Three

(a) Maendeleo Clothing Factory has three production departments A, B and C and one service department D . The following costs were provided by the costing department as incurred for the year ended 31 December 2018.

## Sh.

Rent
20,000
Repairs to plant
12,000
Depreciation of plant
9,000
Lighting
2,000
Supervision
30,000
Repairs to buildings

The following additional information is also provided.

## Departments

|  | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- |
| Area of Sq. metres | 1,500 | 1,100 | 900 | 500 |
| Number of employees | 20 | 15 | 10 | 5 |
| Wages in sh. | 120000 | 80000 | 60000 | 40,000 |

Value of plant $300,000 \quad 180,000 \quad 120,000-$

## Required:

Prepare an overhead analysis sheet to apportion the costs.
(10 marks)
(b) SK Ltd has never operated a system of stock control. You have recently been appointed as the management accountant and tasked to develop a system of stock control.

From your investigations, you establish the following consumption pattern for a component number G007 during the year2015:

| Month | Monthly consumption (units) |
| :--- | :---: |
| January | 800 |
| February | 900 |
| March | 1,000 |
| April | 1,200 |
| May | 1,300 |
| June | 1,400 |
| July | 1,400 |
| August | 1,200 |
| September | 1,000 |
| October | 800 |
| November | 600 |
| December | 400 |

Additional information:

1. The lead time for G 007 is a minimum of 3 months and a maximum of 5 months.
2. The cost of ordering was found to be Sh. 20 per order.
3. The cost price per unit of G007 is Sh. 30.
4. The inventory holding cost is $10 \%$ of the cost price.

## Required:

i) Economic order quantity (EOQ) (1 mark)
ii) Total costs associated with stock
(5 marks)
iii) Re-order level
iv) Maximum stock level
(1 mark)
v) Frequency of ordering

## Question Four

Handshake Ltd. won the contract for building Amani Bridge priced at sh.120m. For the year ended 31 March 2019 the data relating to the contract were as follows:

Material issued to the site
43,000
Cost of labour engaged on contract 7,200
Plant purchased and installed 36,000
Direct expenses 9,600

General management charges 3,500

Material returned to the store
5,000
Work certified 80,000
Cost of work not certified 14,000
Cost of material on site 31/3/2019 4,000
Progress payment received

## Required:

(i) The contract account
(14 Marks)
(ii) Contractee account
(4 Marks)
(iii) Valuation of work in progress.
(2 Marks)

## Question Five

(a) Discuss the following concepts:
i) Product costs
(2 Marks)
ii) Period costs
(2 Marks)
iii) Relevant costs
(2 Marks)
iv) Differential costs
(2 Marks)
(b) Write brief notes on joint products and explain any three methods of apportioning common costs to the joint products.
(8 Marks)
(c) Write two distinguishing features between job costing and process costing (4 Marks)

