# TECHNICAL UNIVERSITY OF MOMBASA <br> Faculty of Business \& Social Studies 

DEPARTMENT OF BUSINESS STUDIES

DIPLOMA IN PROCUREMENT AND MATERIALS MANAGEMENT DIPLOMA IN BUSINESS ADMINISTRATION<br>DIPLOMA IN BUSINESS MANAGEMENT

BAC 2202: MANAGEMENT ACCOUNTING I

SPECIAL/SUPPLEMENTARY EXAMINATIONS
SERIES: FEBRUARY 2015
TIME: 2 HOURS

## INSTRUCTIONS:

- This paper consists of FIVE questions.
- Answer question ONE (Compulsory) and any other TWO questions.

This paper consists of Four printed pages.

## QUESTION 1 (Compulsory)

a) Explain any SIX roles of a management accountant in an organization.
b) ABC Ltd makes a single product whose budget is as follows:

## Sh. Sh.

Selling price
30
Less costs
Direct material 9
Direct labour 4
Direct production expenses 6
Variable selling expenses $\underline{4}$
(23)

Contribution
$\underline{\underline{7}}$
Additional information

1. Unit sales are expected to be:-

| June | July | August | September | October |
| :--- | :--- | :--- | :--- | :--- |
| 1,000 | 800 | 400 | 600 | 900 |

2. Credit sales will account for $60 \%$ of total sales. Debtors are expected to pay in the month following sale for which there will be a cash discount of $2 \%$.
3. Stock levels will be arranged so that production in one month will meet the next month's sales demand.
4. The purchases of direct materials in one month will just meet the next month's production requirements.
5. Suppliers of direct materials will be paid in the month following purchases.
6. Labour costs will be paid on the month in which they are incurred. All other expenses will be paid in the month following that in which they are incurred.
7. Fixed expenses are sh. 2000 per month and include sh. 180 for depreciation.
8. The bank balance at $1^{\text {st }}$ July 2009 is sh. 3,900 favourable to the business.

## Required:

A cash budget for ABC Ltd for the 3 months period ending $30^{\text {th }}$ September 2009 showing the balance of cash at the end of each month.
(18 marks)

## QUESTION 2

a) Explain the concept of time value of money.
b) Outline THREE advantages and THREE disadvantages of payback period as a method of investment appraisal.
c) ABC Company was considering buying a new machine at a cost of sh. $3,200,000$. This machine would be useful for five years, after which it will be sold for sh. 200,000. The machine will generate the following cash inflows:

| Year | Cash inflow |
| :--- | ---: |
| 1 | 900,000 |
| 2 | 800,000 |
| 3 | $1,300,000$ |
| 4 | 750,000 |
| 5 | 500,000 |

Advise the company on whether to buy the machine using the payback period method.
(10 marks)

## QUESTION 3

The production Manager of ABC Ltd is concerned about the apparent fluctuation in efficiency and wants to determine how labour costs (in sh.) are related to volume. The following data represents results of the 12 most recent weeks.

| Week No. | Units produced (x) | Labour cost /Y |
| :--- | :--- | :--- |
| 1 | 34 | 340 |
| 2 | 44 | 346 |
| 3 | 24 | 287 |
| 4 | 36 | 262 |
| 5 | 30 | 220 |
| 6 | 49 | 416 |
| 7 | 39 | 337 |
| 8 | 21 | 180 |
| 9 | 41 | 376 |
| 10 | 47 | 295 |
| 11 | 34 | 215 |
| 12 | 24 | 275 |

## Required:

a) Estimate the cost function using regression analysis.
b) Assume that the company intends to produce 34 units. Estimate the labour cost to be incurred.

## QUESTION 4

Assume that a Management Accountant of a company that makes and sells product X has made the following estimate.

| Selling price (sh.) <br> Sales demand |  |  | Unit variable cost condition |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Condition | Unit | Prob. |  | Cost | Sh. |
| Worst possible | 45,000 | 0.3 | Best possible | 3.5 | 0.30 |
| Most likely | 50,000 | 0.6 | Most likely | 4.0 | 0.55 |
| Best possible | 55,000 | 0.1 | Worst possible | 5.5 | 0.15 |

Fixed cost $=$ sh. 240,000

## Required:

a) Compute the expected profit.
b) Compute the probability that the company will fail to break-even.

## QUESTION 5

a) Explain the following terms:
i) Re-order level
(2 marks)
ii) Stock-out cost (2 marks)
iii) Holding costs
(2 marks)
iv) Buffer stock
v) Ordering costs
b) XYZ Ltd is a wholesale company that supplies tyres to garages. The demand for tyres in a given period is 50,000 units. The cost of holding a tyre in the company's warehouse is sh. 5 per tyre and the cost of placing an order is sh. 9 per tyre.
i) Determine the optimum order size using the basic EOQ model.
ii) Determine the total cost incurred at optimum order size.

