



**MAASAI MARA UNIVERSITY**  
**REGULAR UNIVERSITY EXAMINATIONS**  
**2021/2022 ACADEMIC YEAR**  
**THIRD YEAR FIRST SEMESTER**  
**SCHOOL OF BUSINESS AND ECONOMICS**  
**BSC PROJECT PLANNING AND**  
**MANAGEMENT**  
**COURSE CODE: BCM 3104**  
**COURSE TITLE: INTRODUCTION TO**  
**MANAGEMENT ACCOUNTING**  
**DATE:** **TIME:**

**INSTRUCTIONS TO CANDIDATES**

- *Answer question ONE (compulsory) and any other THREE questions.*
- *Question one carries 25 marks*
- *All other questions carry 15 marks*

**QUESTION ONE**

- a) Discuss any four utilities of Cost Accounting **(4 Marks)**  
 b) Total maintenance costs and direct machine hours for the past 10 accounting periods for a company are as provided below;

Accounting period	Direct machine hours Maintenance costs	
	X	Y
1	990	2060
2	920	1980
3	690	1650
4	770	1710
5	860	2020
6	550	1750
7	450	1650
8	320	1660
9	250	1570
10	290	1680

**Required**

- i) Determine the cost estimation equation,  $y = a + bx$  using the High-Low method. **(4 Marks)**  
 ii) Suppose regression analysis method of cost estimation is employed, determine the cost estimation function,  $y = a + bx$  and indicate which of the two equations will accurate estimations and why? **(6 Marks)**  
 iii) Discuss the limitations of account analysis as a method of cost estimation. **(2 Marks)**

c) The following data was extracted from the records of Uchumi Stores

**Cost X**

Output (units)	100	200	300	400	500
Total cost (sh.)	600	600	600	600	600
Unit cost (sh.)	6.00	3.00	2.00	1.50	1.20

**Cost Y**

Output (units)	100	200	300	400	500
Total cost (sh.)	300	600	900	1,200	1,500
Unit cost (sh.)	3.00	3.00	3.00	3.00	3.00

**Cost Z**

Output (units)	100	200	300	400	500
Total cost (sh.)	660	720	780	840	900
Unit cost (sh.)	6.60	3.60	2.60	2.10	1.80

**Required**

(i) Identify and explain the cost behaviour exhibited by Costs X, Y, and Z in each of the above tables. **(3 Marks)**

(ii) Draw a graph for each table to illustrate the cost behaviour. **(6 Marks)**

**QUESTION TWO**

a) Discuss 5 distinctions between contract costing and job costing **(5 Marks)**

b) The following expenses were incurred on a contract:

	<b>Sh.</b>
Material purchased	600,000
Material drawn from stores	100,000
Wages	225,000
Plant issued	75,000
Chargeable expenses	75,000
Apportioned indirect expenses	25,000

The contract was for Sh. 2,000,000 and it commenced on January 1, 2020. The value of the work completed and certified up to 30th November, 2020 was Sh. 1,300,000 of which Sh. 1,040,000 was received in cash, the balance being held back as retention money by the contractee. The value of work completed subsequent to the architect's certificate but before 31st December, 2020 was Sh. 60,000.

There were also lying on the site materials of the value of Sh. 40,000. It was estimated that the value of plant as at 31st December, 2020 was Sh. 30,000.

**Required.**

Prepare contract account and the amount which will be shown in the balance sheet of the contractor. **(10 Marks)**

### QUESTION THREE

The following data have been obtained from the books of a company:

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Production Volume	50,000 units
Sales Volume	48,000 units
Selling Price per unit	sh. 50
Materials per unit	sh. 20
Labour per unit	sh. 10
<b>Production Overheads:</b>	
Variable	sh. 6 per unit
Fixed	sh. 200,000
<b>Administration &amp; Selling Overheads:</b>	
Variable	sh.3 per unit
Fixed	sh. 156,000

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### Required

- a) Prepare an Income Statement under:
- (i) Absorption Costing technique **(6 Marks)**
  - (ii) Marginal Costing technique. **(6 Marks)**
- b) Explain why there is a difference in the profits reported under Absorption Costing technique from Marginal Costing technique. **(3 Marks)**

### QUESTION FOUR

- a) Discuss three possible causes of a favourable direct materials usage variance **(3 Marks)**
- b) The following particulars relate to Mosaland Manufacturing company;

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Quantity of materials purchased	3,000 units
Value of materials purchased	sh. 9,000
Standard quantity of materials required per tonne of output	30 units
Standard Rate of material per unit	sh. 2.50
Opening Stock of materials	Nil
Closing Stock of materials	500 units
Output during the period	80 tonnes

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**Determine;**

- i. Raw Materials Cost Variance. **(4 Marks)**
- ii. Raw Materials Price Variance. **(4 Marks)**
- iii. Raw Materials Usage Variance. **(4 Marks)**

**QUESTION FIVE**

A factory manufactures garden huts. The production process is classified into two production departments, Assembly and Joinery. There is one service department, the canteen. The relevant forecast information for the year ahead is as follows:

***Indirect costs for all three departments in total:***

	<b><i>Sh.</i></b>
Indirect labour	90,000
Indirect material	81,000
Heating and lighting	25,000
Rent and rates	30,000
Depreciation	56,000
Supervision	45,000
Power	<u>36,000</u>
<b>Total</b>	<b><u>363,000</u></b>

The following information is available about each department:

	<b><i>Total</i></b>	<b><i>Assembly</i></b>	<b><i>Joinery</i></b>	<b><i>Canteen</i></b>
Floor space (sq metres)	50,000	20,000	24,000	6,000
Book value of machinery (sh.)	560,000	300,000	240,000	20,000
Number of employees	150	80	60	10
Kilowatt hours of power	18,000	9,000	8,000	1,000
Direct materials (sh.)		100,000	50,000	
Direct labour (sh.)		50,000	42,000	
Maintenance hours		8,000	6,000	
Labour hours		12,640	8,400	

The canteen is used by both production cost centres.

**Required**

- a) Apportion production overhead costs over the assembly, joinery and canteen departments using a suitable basis for each department **(7 Marks)**
- b) Apportion service department costs over production departments using continuous distribution method. **(3 Marks)**
- c) For each production department, calculate an overhead cost rate, based on labour hours, which may be used to absorb production overhead cost into jobs. **(2 Marks)**
- d) Find the overhead cost of a job which spends three labour hours in the assembly department and four labour hours in the joinery department. **(3 Marks)**

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