



**CPA PART I SECTION 2**  
**MANAGEMENT ACCOUNTING**

**WEDNESDAY: 1 September 2021.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.**

**QUESTION ONE**

- (a) Identify and explain four types of costs that are irrelevant for decision making. (8 marks)
- (b) Meyton Ltd. reported the following production costs for the 12-month period from 1 January 2020 to December 2020:

<b>Period</b>	<b>Total production cost (Sh. "000")</b>	<b>Level of activity (Units produced)</b>
January	460	30
February	300	22
March	480	33
April	550	39
May	570	41
June	310	24
July	410	29
August	455	32
September	530	38
October	250	15
November	700	45
December	490	35

**Required:**

- (i) Using linear regression, establish the production function in the form of  $Y = a + bx$ . (8 marks)
- (ii) From the equation in (b) (i) above, estimate the production cost that would be incurred on 50 units. (2 marks)
- (iii) State any two advantages of regression method of cost estimation. (2 marks)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) Examine four limitations of financial accounting that have made organisations introduce management accounting. (8 marks)
- (b) The following details have been recorded for four batches made in the month of June 2021:

<b>Batch</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Output in units	250	60	200	120
<b>Cost per batch:</b>	<b>Sh.</b>	<b>Sh.</b>	<b>Sh.</b>	<b>Sh.</b>
Direct materials	1,650	750	2,100	900
Direct labour	9,200	1,520	6,880	2,400
Labour hours per batch	1,150	190	860	300

**Additional information:**

1. The total production overheads for the month of June 2021 has been analysed as follows:

	Sh.
Machine related cost	14,600
Material handling and dispatch	6,800
Stores	8,250
Inspection/quality control	5,850
Set-ups	6,200
Engineering support	8,300

2. The following cost driver volumes were recorded for the four batches:

Batch	A	B	C	D	Total
Machine hours per batch	520	255	610	325	1,710
Material movements	180	70	205	40	495
Requisitions	40	21	43	26	130
Inspections	18	8	13	8	47
Set-ups	12	7	16	8	43
Engineering hours	65	38	52	35	190

**Required:**

- (i) Based on a labour hour overhead absorption rate (OAR), compute the batch cost and unit cost using traditional absorption costing system. (4 hours)
- (ii) The batch cost and unit cost using Activity Based Costing (ABC) system. (8 marks)

**(Total: 20 marks)****QUESTION THREE**

- (a) FMS Clinix Ltd. operates two hospitals in a remote area; thus subsidising the cost of its services.

The following information relating to the two hospitals over the last one year is provided:

	Mashariki Hospital	Kusini Hospital
Number of hospital beds	780	500
Number of in-patients	23,472	8,165
Average stay	7½ days	?
Number of outpatient visits	216,500	63,920
? Not recorded but bed occupation percentage was 85%.		

**Additional information:**

1. The following information was provided by the accountants based on the two hospitals:

	Mashariki Hospital		Kusini Hospital	
	Inpatients	Outpatients	Inpatients	Outpatients
<b>Direct costs:</b>	<b>Sh.</b>	<b>Sh.</b>	<b>Sh.</b>	<b>Sh.</b>
Supplies and drugs	1,821,520	693,600	1,551,350	285,450
Medical staff	8,729,100	3,308,950	6,832,700	1,975,050
Support services	2,210,500	2,563,700	1,845,380	1,591,620
<b>Indirect costs:</b>				
General services	<u>3,524,470</u>	<u>1,721,800</u>	<u>1,937,410</u>	<u>635,600</u>
<b>Totals</b>	<b><u>16,285,590</u></b>	<b><u>8,288,050</u></b>	<b><u>12,166,840</u></b>	<b><u>4,487,720</u></b>

2. Assume a 365-days year.

**Required:**

- (i) Average length of stay at Kusini Hospital. (3 marks)
- (ii) Bed occupation percentage in Mashariki Hospital (3 marks)
- (iii) Cost per in-patient day for both hospitals. (4 marks)
- (iv) Cost per out-patient attendance for both hospitals. (4 marks)

- (b) Fanaka Enterprises uses economic order quantity (EOQ) model to establish the re-order quantity of raw material "Y". The company hold no buffer stock.

The following information relates to raw material "Y":

Annual usage	48,000 units
Purchase price	Sh.80 per unit
Ordering costs	Sh.120 per order
Annual holding costs	10% of the purchase price

The company's supplier of raw material "Y" has offered a discount of 1% of the purchase price if each order placed is for 2,000 units.

**Required:**

- (i) Economic order quantity (EOQ) of raw material "Y". (1 mark)
- (ii) Advise the management of the company on whether to accept or decline the offer. (5 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- (a) Evaluate three benefits that would accrue to an organisation that has a cost accounting department (6 marks)
- (b) MK Enterprises produces and sells two products branded "M" and "K" which are used as raw materials in production of wall paint. The cost accountant has provided the following monthly data for budgeting purposes:

Product	M	K
Sales level (units)	2,000	1,500
Opening stock (units)	100	200
Materials required:		
Exe (kgs)	2	3
Zed (litres)	1	4
Labour hours required:		
Skilled labour (hours)	4	2
Semi-skilled labour (hours)	2	5

**Additional information:**

- Material costs are as follows:
 

Exe per kg	-	Sh.100
Zed per litre	-	Sh.70
- Labour costs are as follows
 

Skilled labour per hour	-	Sh.120
Semi-skilled labour per hour	-	Sh.80
- Closing stock of materials and finished goods will be sufficient to meet 10% of demand.
- Opening stocks for material Exe was 300kgs and for material Zed was 1,000 litres.

**Required:**

Prepare the following budgets:

- (i) Production budget in units. (3 marks)
- (ii) Materials usage budget in kilograms and litres. (3 marks)
- (iii) Materials purchases budget in kilograms, litres and shillings. (4 marks)
- (iv) Labour budget in hours and shillings. (4 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- (a) Double B Ltd. manufactures a chemical that passes through three production processes namely; 1, 2 and 3. In the month of June 2021, 6,000 litres of the basic raw materials priced at Sh.240,000 were introduced into process 1.

Subsequently, the following costs were incurred:

Element of cost	Total Sh.	Process		
		1 Sh.	2 Sh.	3 Sh.
Direct materials (additional)	87,500	30,000	40,000	17,500
Direct labour	110,000	40,000	50,000	20,000
Direct expenses	16,900	6,000	1,600	9,300

**Additional information:**

- Normal output per process was estimated as follows:
 

Process 1	90%
Process 2	95%
Process 3	92%
- The output of each process was as given below:
 

	<b>Litres</b>
Process 1	5,300
Process 2	5,000
Process 3	4,700
- The loss in each process represented scrap which could be sold at the following prices:
 

	<b>Price per unit (Sh.)</b>
Process 1	20
Process 2	44
Process 3	65
- There were no stocks of materials or work-in-progress at the beginning or end of the period.
- The output of each process passes directly to the next process and finally to finished goods.
- Production overhead is absorbed by each process on a basis of 50% of the cost of direct labour.

**Required**

- Process 1 account. (3 marks)
  - Process 2 account. (3 marks)
  - Process 3 account. (3 marks)
  - Abnormal loss account. (2 marks)
  - Abnormal gain account. (1 mark)
- (b) Wetu Ltd. makes leather purses. It has drawn up the following budget for its next financial period:

Selling price per unit	Sh.11.60
Variable production cost per unit	Sh.3.40
Sales commission	5% of selling price
Fixed production costs	Sh.430,500
Fixed selling and administrative cost	Sh.198,150
Sales	90,000 units

**Required:**

- Margin of safety percentage. (5 marks)
- The marketing manager has indicated that an increase in the selling price to Sh.12.25 per unit would not affect the number of units sold provided that the sales commission is increased to 8% of the selling price.

**Required:**

Determine the new break-even point in units.

(3 marks)

**(Total: 20 marks)**