



CPA INTERMEDIATE LEVEL

MANAGEMENT ACCOUNTING

WEDNESDAY: 23 April 2025. Morning Paper.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.

QUESTION ONE

- (a) Understanding cost behaviour patterns is important in making management accounting and cost control decisions.

In relation to the above statement, explain **THREE** types of costs which can be classified according to cost behaviour. (6 marks)

- (b) Mbao Ltd. makes and sells three types of standard furniture using job order costing system. The extract below shows the budgeted production plan for sofa sets, tables and beds in three product cost centres for the month of May 2025:

Product	Sofa sets	Tables	Beds	Total
Production and sales (units)	1,000	2,000	800	
Direct material cost per unit	Sh.4,500	Sh.2,000	Sh.3,100	Sh.10,980,000
Direct labour hours per unit	2.5	2	3	8,900
Machine hours per unit	1.5	1	2	5,100
Direct labour cost per hour	Sh.1,000	Sh.800	Sh.750	
<b>Cost drivers:</b>				
Number of production runs	3	7	20	30
Number of deliveries	30	20	50	100
Number of requisitions raised	15	35	220	270
Number of orders executed	15	10	25	50

**Additional information:**

- The company operates a just in time (JIT) inventory policy and receives each component once per production run.
- Currently, production overheads are allocated based on direct labour hours absorption basis.
- Susana Njeri, the company management accountant has recently attended a conference on activity-based costing (ABC) system where she learnt that overheads costs can be analysed by the major activities in order to compute the activity-based costs. Therefore, she proposed the adoption of activity-based costing (ABC) technique.
- The production overheads for the period have been analysed as follows together with their cost drivers:

Production overhead cost	Cost driver	Sh.
Set up costs	Number of production runs	300,000
Machining costs	Number of machine hours	1,122,000
Requisition costs	Number of requisitions raised	1,350,000
Inspection costs	Number of deliveries	1,493,000
Material handling costs	Number of orders executed	<u>1,075,000</u>
		<u>5,340,000</u>

**Required:**

Calculate the unit cost for each product production costs are absorbed on the basis of:

- Direct labour hour overhead absorption base. (6 marks)
- Activity based costing (ABC) base. (8 marks)

(Total: 20 marks)

## QUESTION TWO

(a) Highlight **FOUR** features of process costing. (4 marks)

(b) (i) A budget is a planning and control tool expressed in monetary terms. The budget is prepared to perform certain functions.

With reference to the above statement, discuss **FOUR** functions of budgetary control and planning. (8 marks)

(ii) Beehive Enterprises has provided the following extract of the trial balance as at 1 March 2025:

	Debits Sh.	Credits Sh.
Cash	60,000	
Accounts receivable	195,000	
Allowance for bad debts		24,000
Inventory	120,000	
Accounts payable		90,000

### Additional information:

- Purchases are payable within 10 days. Assume that one-third (1/3) of the purchase of any month are due and paid for in the following month.
- The unit cost of the inventory purchased is Sh.10. At the end of each month, the firm's policy is to have an inventory equal to 50% of the following month's unit sales.
- Sales terms include a 1% discount if payment is made by the end of the calendar month in which the sale took place. Past experiences indicate that 60% of the billings will be collected during the month of the sale, 30% in the following calendar month, 6% in the next following calendar month and 4% will be uncollectible.
- The following data relates to sales:

	Sh.
Selling price per unit	150
January 2025 actual sales revenue	150,000
February 2025 actual sales revenue	450,000
March 2025 actual sales revenue	360,000
April estimated sales revenue	270,000
Total sales expected in the fiscal year	4,500,000
- The firm's fiscal year begins on 1 January of every year.
- Exclusive of bad debts, the total budgeted selling and general administrative expenses for the fiscal year are estimated at Sh.705,000 of which Sh.210,000 is fixed expense (inclusive of Sh.90,000 annual depreciation charge).
- Fixed expenses are incurred uniformly throughout the year.
- The balance of the selling and general administrative expenses varies with sales. Expenses are paid as incurred.

### Required:

A cash budget for the month of April 2025.

(8 marks)

**(Total: 20 marks)**

## QUESTION THREE

(a) Zuka Ltd. is planning to introduce a service costing system in its stores operations department.

### Required:

- Explain the concept of service costing as used in management accounting. (2 marks)
  - Propose **FOUR** factors that the company might consider when introducing the service costing system. (4 marks)
- (b) Explain **TWO** causes of differences in profits reported by marginal costing and absorption costing methods. (4 marks)

- (c) Masomo Publishers Ltd. has been making and selling different types of exercise books. The publishers operate absorption costing system.

A summary of the company's budgeted profit statements for its next week, when it expects to be operating at 75% of capacity is given below:

Types of exercise book	200 pages "Sh.per unit"	96 pages "Sh.per unit"	120 pages "Sh.per unit"
Direct material cost	60	22	26
Direct labour cost	25	10	20
Variable overhead cost	5	3	6
Fixed overhead cost	20	20	20
Net profit/(loss)	<u>10</u>	<u>(5)</u>	<u>8</u>
Retail selling price	<u>120</u>	<u>50</u>	<u>80</u>

The market demand for the exercise books and time required per unit has been analysed as follows:

Product	Expected demand per week (units)	Machine hours per unit required
200 pages book	8,000	45 minutes
96 pages book	25,000	15 minutes
120 pages book	22,000	30 minutes

**Additional information:**

- There is a maximum of 20,250 machine hours available per week.
- Fixed costs budgeted are Sh.1,100,000 per week.

**Required:**

- The optimal production mix in units. (6 marks)
- The resultant net profit at optimal production mix. (4 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) Yusuf Enterprises uses the Economic Order Quantity (EOQ) to establish the optimal reorder quantity for purchasing the main raw material used in the production process.

The firm has been approached by an alternative supplier who would be willing to offer the following discounts:

Order level	Discount (%)
0 – 199	1
200 – 499	3
500 – 699	5
700 units or more	7

Information regarding the current inventory costs is as follows:

Holding cost per unit per year is approximated to be 10% of the purchase price

Order cost	Sh.2 per order
Annual demand	15,000 units
Purchase price	Sh.15
Current EOQ	200 units

**Required:**

- Determine the order quantity that would yield the lowest total cost. (6 marks)

- (b) Jiko Moto Ltd. wishes to set a flexible budget for the sale of gas cookers. The production cost incurred and the number of gas cookers produced during six months of financial year 2024/2025 were as follows:

Month	Production cost Sh.	Number of gas cookers
1	10,473,000	1,200
2	11,322,600	1,400
3	10,623,800	1,250
4	10,802,200	1,300
5	10,247,600	1,150
6	10,954,800	1,350

The monthly total and monthly average figures for the six month of the financial year 2024/2025 is as follows:

	Production cost Sh.	Number of gas cookers
Monthly total	65,424,000	7,650
Monthly average	10,904,000	1,275

**Required:**

Using High-Low analysis, devise a cost estimation equation in the form  $Y = a + bx$  and estimate the:

- Variable production cost per gas cooker. (3 marks)
  - Fixed production cost per month. (3 marks)
- (c) Wingu Ltd. manufactures and sells blankets and has the following costs and selling price structure:

	Sh. Per unit	Sh. Per unit
Selling price		1,200
Direct material	220	
Direct labour	360	
Variable overhead	140	
Fixed overhead	<u>120</u>	<u>(840)</u>
Net profit		<u><u>360</u></u>

**Additional information:**

- The fixed overhead absorption rate is based on the budgeted activity level of 5,000 units per month. Assume that fixed overheads are incurred evenly each period.
- Budgeted sales for next month amounted to 3,500 units.

**Required:**

- The break-even point in sales units per month. (2 marks)
- The margin of safety for the next month. (2 marks)
- The budgeted profit for the next month. (2 marks)
- The sales units required to achieve a target profit of Sh.552,000 in a month. (2 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) Explain **FOUR** advantages of standard costing. (8 marks)
- (b) Bidii Ltd. produces a detergent branded “Kik”. During its first week of production, the cost accountant has provided the following information:

Standard cost (for one unit)	Sh.
Direct materials: 10 units @Sh.1.50	15
Direct labour: 5 hours @ Sh.8	40
Production overheads: 5 hours @ Sh.10	<u>50</u>
	<u>105</u>

**Actual figures (for whole activity):**

Direct materials: Sh.6,435  
Direct labour: Sh.16,324

**Analysis of variances:**

Direct materials:	Price	Sh.585(A)
	Usage	Sh.375 (F)
Direct labour:	Rate	Sh.636 (F)
	Efficiency	Sh.360 (A)
Production overheads:	Expenditure	Sh.400 (F)
	Volume	Sh.750 (F)

**Required:**

Compute the following:

- (i) Actual output units. (3 marks)
- (ii) Actual price of material per unit. (3 marks)
- (iii) Actual wage rate per labour hour. (3 marks)
- (iv) The amount of production overhead incurred. (3 marks)

**(Total: 20 marks)**

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**CPA INTERMEDIATE LEVEL**

**MANAGEMENT ACCOUNTING**

**TUESDAY: 3 December 2024. Morning Paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

**QUESTION ONE**

(a) Define the following types of costs as used in decision making:

(i) Controllable costs. (2 marks)

(ii) Discretionary costs. (2 marks)

(b) Maroon Paints Ltd. makes and sells high quality paints. The company has two departments namely; Mixing and Blending and uses a single production overhead absorption rate based on direct labour hours. The budget and actual data for the month of October 2024 are given below:

<b>Budget</b>	<b>Mixing</b>	<b>Blending</b>	<b>Total</b>
Budgeted direct wages (Sh.)	2,400,000	7,000,000	9,400,000
Budgeted direct labour hours	40,000	100,000	140,000
Budgeted machine hours	120,000	10,000	130,000
Budgeted production overheads (Sh.)	18,000,000	10,000,000	28,000,000

During the month of October 2024, a batch of product "Cyan Paint" was made and had the following costs:

Direct material cost per batch is Sh.630,000

	<b>Direct wages (Sh.)</b>	<b>Labour hours</b>	<b>Machine hours</b>
Mixing	726,000	1,200	4,600
Blending	<u>2,490,000</u>	<u>4,150</u>	<u>380</u>
	<u>3,216,000</u>	<u>5,350</u>	<u>4,980</u>

The Management Accountant has proposed that appropriate departmental overhead absorption rates per department be applied, that is, machine hours in mixing department and labour hours in blending department.

**Required:**

(i) The cost of the batch of Cyan Paint using a single company-wide overhead absorption rate. (6 marks)

(ii) Departmental overhead absorption rates. (2 marks)

(iii) The cost of the batch of Cyan Paint using management accountant proposal. (4 marks)

(iv) During the month of October 2024, the actual overheads and other relevant data was as follows:

<b>Actual</b>	<b>Mixing</b>	<b>Blending</b>	<b>Total</b>
Actual direct wages (Sh.)	3,000,000	5,950,000	8,950,000
Actual direct labour hours	50,000	85,000	135,000
Actual machine hours	140,000	8,000	148,000
Actual production overheads (Sh.)	20,000,000	9,500,000	29,500,000

Using the management accounting proposal, calculate the over/under absorption of overhead per department. (4 marks)

**(Total: 20 marks)**

## QUESTION TWO

- (a) Distinguish between “joint products” and “by-products” as used in the costing methods. (4 marks)
- (b) The following information relates to the unit manufacturing costs of product “TM” made by Timua Ltd.:

	<b>Sh.</b>	<b>Sh.</b>
Selling price		200
<b>Less:</b>		
Variable production costs	120	
Variable selling cost	<u>10</u>	<u>130</u>
Contribution		<u>70</u>

### Additional information:

- The budgeted fixed production cost is Sh.4,200,000 per annum for a normal production of 140,000 units.
- Budgeted fixed selling and administrative overheads are Sh.2,800,000 per annum.
- The budgeted fixed costs are incurred evenly during the year.
- There are two periods in a year, each of 6 months.
- During the latest financial year, the following results were achieved:

	<b>Period 1</b>	<b>Period 2</b>
Production (units)	75,000	65,000
Sales (units)	60,000	70,000
- There was no opening inventory at the beginning of the year.
- Fixed production costs and selling and administrative costs incurred during the year were equal to the budget.

### Required:

Prepare profit or loss statements for each of the two periods using each of the following presentation methods:

- (i) Marginal Costing. (8 marks)
- (ii) Absorption Costing. (8 marks)

**(Total: 20 marks)**

## QUESTION THREE

- (a) Explain the following terminologies as used in business decision making:
- (i) Opportunity cost. (2 marks)
- (ii) Opportunity savings. (2 marks)
- (b) Savanna Supermarket currently orders 1,000 units of stock item “Zedo” at a time. The management of Savanna Supermarket has decided that it may be better to use the Economic Order Quantity method to establish an optimal reorder quantity.

Information regarding stocks is given below:

- Annual demand 12,000 units
- Purchase price Sh.15 per unit
- Fixed cost per order Sh.200
- The cost of holding an item “Zedo” in stock for a year is made up of the following percentages:

Obsolescence	3%
Perpetual audit	1.5%
Opportunity cost	2%
Insurance	1%
Storage	0.5%

The current annual total inventory costs are Sh.183,000, being the total of the purchasing costs, ordering costs and holding costs of stock item “Zedo”.

### Required:

- (i) Using appropriate calculations, show how annual demand of stock item “Zedo” amounts to Sh.12,000 units. (5 marks)
- (ii) Calculate the Economic Order Quantity. (2 marks)
- (iii) Using your answer in (b) (ii) above, calculate the revised annual total inventory costs of stock item “Zedo” and establish any cost gap/cost saving from pursuing the optimal policy. (3 marks)

- (c) T-shirt Ltd. is a company that manufactures games kits for secondary schools which are embossed with the school logo. A school has ordered a batch of 600 games kits. The following is the direct production batch cost of 100 games kit:

	Sh.
Direct materials	60,000
Direct labour	20,000
Machine setup cost	6,000
Design and logo	<u>30,000</u>
Prime cost	<u>116,000</u>

**Additional information:**

1. T-shirt Ltd. absorbs production overheads at a rate of 20% of direct wages cost.
2. 5% is added to the total production cost of each batch to allow for selling, distribution and administrative overheads.
3. T-shirt Ltd. requires a notional profit margin of 25% on sales.

**Required:**

Calculate the selling price per unit for the 600 games kit.

(6 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) The effectiveness of an organisation's budgetary control system relies significantly on having a well-designed budget that allocates resources efficiently and monitors expenditures consistently.

**Required:**

With reference to the above statement, discuss **FOUR** conditions for an effective budgetary control system. (8 marks)

- (b) Explain **TWO** ways in which advancements in technology could enhance the effectiveness of management accounting practices. (4 marks)

- (c) Alto Ltd. manufactures a single product branded "PQ". The following data relates to its operations for the month of October 2024:

	Budget Units	Actual Units
Sales	30,000	29,000
Production	30,000	30,000
	Sh."000"	Sh."000"
Sales	420,000	411,800
Direct materials	120,000	123,000
Direct labour	150,000	144,000
Fixed overheads	67,500	70,000
Net income	82,500	74,800

**Required:**

A flexible budget for the month of October 2024 for the actual sales of 29,000 units.

(8 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) Variance analysis is the process of investigating the cause of differences between the actual amount of material, labour, sales and overheads and the expected budgeted amount. This results in either favourable variances or adverse variances.

**Required:**

- (i) Identify **FOUR** causes of favourable material price variances. (4 marks)
- (ii) Explain **FOUR** remedies to adverse material price variances. (4 marks)



- (b) Maya Ltd. produces two products namely; Product M and Product Y. The following budget applies for the year ended 30 June 2024.

	<b>Product M</b>	<b>Product Y</b>
	<b>Sh.</b>	<b>Sh.</b>
Selling price	6	12
Variable costs	<u>2</u>	<u>4</u>
Contribution margin	<u>4</u>	<u>8</u>
Fixed costs (Sh.)	96,400,000	200,000,000
Units sold (bags)	70,000,000	30,000,000

**Required:**

- (i) The break-even points at current sales mix. (4 marks)
- (ii) The break-even point at a proposed sales mix of 1:1. (4 marks)
- (iii) Current margin of safety. (2 marks)
- (iv) Sales units required to earn a profit of Sh.299,000,000 at current sales mix. (2 marks)

**(Total: 20 marks)**

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## CPA INTERMEDIATE LEVEL

### MANAGEMENT ACCOUNTING

**TUESDAY: 20 August 2024. Morning Paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

#### QUESTION ONE

- (a) With reference to cost classification, distinguish between the following types of costs:
- (i) “Semi-variable costs” and “semi-fixed costs”. (2 marks)
  - (ii) “Prime costs” and “marginal costs”. (2 marks)
- (b) Cost Database Management System (DBMS) is a computer based software system that is used in management accounting to manage costs.

**Required:**

Highlight **FOUR** benefits of implementing a cost database management system for inventory. (4 marks)

- (c) Medico Ltd. is a pharmaceutical company which manufactures three types of medicines namely; Alpha, Beta and Zeta using absorption costing system. The company has two grades of labour; skilled labour and semi-skilled labour. The following profit statement relates to the operations of Medico Ltd.

	<b>Alpha</b>	<b>Beta</b>	<b>Zeta</b>
	<b>Sh.</b>	<b>Sh.</b>	<b>Sh.</b>
Selling price per unit	<u>595</u>	<u>870</u>	<u>1,095</u>
<b>Cost per unit:</b>			
Direct material	115	140	220
<b>Direct labour:</b>			
Skilled labour (Sh.80 per hour)	80	160	240
Semi-skilled (Sh.60 per hour)	60	120	110
Fixed overhead cost (see note 1)	<u>100</u>	<u>100</u>	<u>100</u>
<b>Total cost per unit</b>	<b><u>355</u></b>	<b><u>520</u></b>	<b><u>670</u></b>
Net profit per unit	<u>240</u>	<u>350</u>	<u>425</u>
	<b>Units</b>	<b>Units</b>	<b>Units</b>
Expected maximum production and demand	3,000	5,000	6,500

**Additional information:**

- Fixed overhead costs are Sh.1,450,000 per annum.
- Variable overheads are absorbed into production at a rate of 100% for skilled labour and 50% of the semi-skilled labour. These variable overheads have not been absorbed in the profit statement above.
- There is a maximum of 28,000 skilled labour hours available.
- Deficit units can be outsourced from chemist suppliers at the following prices:

Medicine	Alpha	Beta	Zeta
Purchase price per unit	Sh.425	Sh.650	Sh.895

**Required:**

- (i) Compute the shortfall in skilled labour hours. (2 marks)
- (ii) Determine the optimal production mix and the number of units to be outsourced from chemist suppliers. (6 marks)
- (iii) Maximum net profit achievable for the period based on quantities determined in (c) (ii) above. (4 marks)
- (Total: 20 marks)**

**QUESTION TWO**

- (a) Identify **FIVE** challenges faced by a business in implementing a cost accounting system. (5 marks)
- (b) Maziwa Ltd. is a small company that specialises in buying and selling of powdered milk. The milk tins are packaged in boxes.  
The company started its operations on February 2024 with a capital of Sh.4,000,000. During the past period of six months, the following transactions have occurred:

Date of receipt	Powdered milk purchases		Sale of powdered milk		
	Quantity (boxes)	Total cost Sh.	Date of dispatch	Quantity (boxes)	Total sales Sh.
February 13	200	72,000	March 10	500	250,000
March 8	400	152,000	May 20	600	270,000
April 11	600	240,000	July 25	400	152,000
May 12	400	140,000			
July 15	500	140,000			

**Additional information:**

- The closing inventory counted on 31 July 2024 was 500 boxes.
- General operating expenses paid during the period amounted to Sh.23,000.
- The company uses LIFO method of inventory valuation.

**Required:**

Prepare:

- (i) A stores ledger account. (6 marks)
- (ii) Income statement for the company for the period ended 31 July 2024. (5 marks)
- (c) Konya Ltd. had a weekly minimum and maximum consumption of material Q at 250 and 750 units respectively. The re-order quantity as fixed by the company is 3,000 units. The material is received within a period of 4 to 6 weeks from the date of issue of supply order.

**Required:**

Calculate the:

- (i) Minimum stock level. (2 marks)
- (ii) Maximum stock level. (2 marks)
- (Total: 20 marks)**

**QUESTION THREE**

- (a) (i) Explain the term “budget committee”. (2 marks)
- (ii) Outline **FOUR** roles of a budget committee. (4 marks)

- (b) The following cost data has been obtained from the records of Komputa Ltd., an IT company based in industrial area. The firm specialises in assembly of computers.

Month	Number of computers assembled	Total cost incurred Sh. '000'
January	1,600	164,000
February	900	112,000
March	1,100	100,000
April	820	96,000
May	1,160	120,000
June	1,200	124,000
July	1,300	128,000
August	1,360	130,000
September	1,400	140,000
October	1,500	148,000
November	1,700	180,000

**Required:**

- Using the high-low method, formulate an equation that can be used to estimate the future total cost in the form of  $y = a + bx$ . (4 marks)
- Using the least square method, formulate the cost function in the form of  $y = a + bx$ . (8 marks)
- Using the equations obtained in (b)(i) and (b) (ii) above, estimate the total cost to be incurred in December if 1,800 computers are expected to be assembled. (2 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- Highlight **FOUR** arguments for the use of marginal costing. (4 marks)
- Aquatiq Ltd. manufactures water dispensers for both domestic and office use using absorption costing system. There are three models branded “regular”, “medium” and “deluxe”.

Selected data for the three products is as follows:

Model	Regular	Medium	Deluxe
Direct material cost per unit	Sh.2,500	Sh.3,250	Sh.5,500
Direct labour hours per unit	0.75hours	1.5 hours	1 hour
Machine hours per unit	1.5 hours	1 hour	3 hours
Production volume	800 units	1,200 units	4,800 units

**Additional information:**

- The total cost per unit is loaded a profit markup of 20% to determine the selling price.
- Direct labour cost is Sh.2,100 per labour hour.
- Currently, production overheads are absorbed based on a blanket-wise machine hour absorption costing basis. The rate for the period is Sh.1,500 per machine hour.
- Budgeted annual production overheads for Aquatig Ltd. amounted to Sh.25,200,000. Further analysis shows that the production overheads can be apportioned according to activity based costing (ABC) approach as follows:

Cost pools	Apportionment	Cost driver
Set-up costs	40%	Number of set-ups
Machine costs	20%	Number of machine hours
Material procurement cost	10%	Number of orders
Quality control cost	<u>30%</u>	Number of inspections
	<u>100%</u>	

- The following cost drivers are associated with the models:

Model	Regular	Medium	Deluxe
Number of set-ups	64	120	320
Number of orders	12	21	87
Number of inspections	120	180	456
Number of machine hours	1,200	1,200	14,400

**Required:**

Calculate for each model, the full cost and selling price per unit under:

- (i) Blanket-wise absorption costing approach. (8 marks)
- (ii) Activity based costing (ABC) approach. (8 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) The table below shows the type of cost classification base and an example of type of cost. By giving one example in each, fill in the missing letters W, X, Y and Z.

Cost classification	Example of cost	
Example:		
Functional classification	Production cost, Administrative cost.	
(i) On basis of time	W	(1 mark)
(ii) X	Variable cost, fixed cost	(1 mark)
(iii) By nature of elements	Y	(1 mark)
(iv) Z	Opportunity cost, sunk cost	(1 mark)

- (b) Explain **THREE** benefits of standard costing and variance analysis to an organisation. (6 marks)

- (c) Saruji Ltd. manufactures a product branded “GemLime”. The company operates several manufacturing processes. In the process I, joint products “Gem” and “Lime” are produced in the ratio of 5:3 by volume from the raw material input.

The following information relates to process I for the first week of the month of July 2024:

Raw material input	60,000 kilograms at a cost of Sh.3,810,000
Abnormal gain	1,000 kilograms

**Other costs incurred upto the split off point:**

Direct labour cost	Sh.1,800,000
Direct expenses	Sh.540,000
Production overheads	110% of direct labour cost

**Additional information:**

- Normal loss in process I of 5% of the raw material input is expected. Losses have a realisable value of Sh.50 per kilogram.
- The company holds no work-in-progress.
- The joint costs are apportioned to the joint products using the physical volume measure basis at split off point.

**Required:**

- (i) Prepare process I account for the first week of the month of July 2024 in which both the output volumes and values for each of the joint products are shown separately. (6 marks)
- (ii) Saruji Ltd. can sell product Gem for Sh.20 per kilogram at the end of process I. It is considering a proposal to further process Gem in process II in order to create product “GemLime”. The further processing in process II would cost Sh.4 per kilogram input from process I. In process II, there would be a normal loss in volume of 10% of the input to that process. This loss has no realisable value. Product “GemLime” could then be sold for Sh.26 per kilogram.

Determine based on financial considerations only, whether product Gem should be further processed to create product “GemLime”. (4 marks)

**(Total: 20 marks)**

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**CPA INTERMEDIATE LEVEL**

**MANAGEMENT ACCOUNTING**

**TUESDAY: 23 April 2024. Morning Paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

**QUESTION ONE**

- (a) Cost classification is essential for easier cost ascertainment and cost control.

With reference to the above statement, explain the following bases of cost classification citing one example in each case:

- (i) By time. (2 marks)
  - (ii) By behaviour. (2 marks)
  - (iii) By function. (2 marks)
  - (iv) By nature. (2 marks)
- (b) OJ Ltd. manufactures and sells mobile phones. The company's budgeted statement of profit or loss for the month of May 2024 is as follows:

	Sh.	Sh.
Sales (1,200 units at Sh.18,000 per unit)		21,600,000
<b>Less:</b> Cost of sales:		
Production (1,800 units at Sh.10,000 per unit)	18,000,000	
<b>Less:</b> Closing inventory (600 units at Sh.10,000 per unit)	<u>(6,000,000)</u>	<u>(12,000,000)</u>
Gross profit		9,600,000
<b>Less:</b> Variable selling expenses (10% of sales)		<u>(2,160,000)</u>
Fixed selling and distribution costs		<u>(1,705,000)</u>
Net profit		<u><u>5,735,000</u></u>

**Additional information:**

- The budget was prepared using absorption costing principle.
- If the budgeted production in May 2024 had been 2,000 units, then the total production cost would have been Sh.18,800,000.

**Required:**

Using high-low method, calculate:

- (i) The variable production cost per unit. (2 marks)
  - (ii) The total monthly fixed production cost. (2 marks)
- (c) Assuming the budget of OJ Ltd. for the month of May 2024 had been prepared using marginal costing principle, calculate:
- (i) The net profit. (5 marks)
  - (ii) The break-even point (BEP) in sales value. (3 marks)

**(Total: 20 marks)**

## QUESTION TWO

- (a) Describe **THREE** roles of management accounting in an organisation. (6 marks)
- (b) Dynamok Ltd., manufactures bicycles. The company uses job costing to allocate costs to individual products provided to its customers. The company has three production departments T, Q and M.

The company has commenced the preparation of its fixed production overhead cost budget for the next financial year and has identified the following costs:

Overhead cost	Sh. "million"	Basis of apportionment
Depreciation	660	Net book value of equipment
Indirect labour	900	Direct labour hours
Repairs and maintenance	110	30% to T, 50% to Q and 20% to M
Heating and lightning	90	Floor area
Consumable supplies	30	Direct labour hours
General overheads		20% of direct wages cost of each department

The costs are apportioned to the individual production departments; T, Q and M as follows:

Production department	T	Q	M
Direct labour hours	5,000	3,000	2,000
Direct wages cost (Sh. Million)	150	210	100
Number of employees	25	15	10
Floor area in square metres (M <sup>2</sup> )	5,000	4,000	1,000
Net book value of equipment (Sh. Million)	80	50	90

### Required:

- (i) The primary allocation of production overhead costs to the three departments. (6 marks)
- (ii) Calculate the overhead absorption rate (OAR) for each department based on direct labour hours. (3 marks)
- (iii) A quotation for a job made as batch BQ23 has the following estimated information:
- |                      |                           |
|----------------------|---------------------------|
| Direct material cost | Sh.140,000,000            |
| Direct labour hours  | 550 hours in department T |
|                      | 890 hours in department Q |
|                      | 160 hours in department M |

### Required:

- Using the OAR computed in (b) (ii) above, compute the total cost of job batch BQ23. (5 marks)
- (Total: 20 marks)**

## QUESTION THREE

- (a) Management accounting is a discipline that communicates economic information to various parties known as "end-users".

With reference to the above statement, outline **TWO** user information needs of the following end-users:

- (i) Executives. (2 marks)
- (ii) Production managers. (2 marks)
- (iii) Management accountants. (2 marks)
- (b) Luxury Weekend County Park is an entertainment park that offers individual and family entry tickets. The tickets include a meal, three types of beverages and unlimited use of the swimming pools. Luxury Weekend County Park has the following ticket prices and variable costs for the year 2024:

Ticket class	Individual Sh.	Family Sh.	Total Sh.
Selling price per ticket	2,400	3,000	
<b>Variable cost per ticket:</b>			
Cost of meal	(740)	(800)	
Direct labour	(600)	(600)	
Variable cost of beverages	(240)	(250)	
Swimming cost	<u>(220)</u>	<u>(250)</u>	
Contribution margin	<u>600</u>	<u>1,100</u>	

	Sh.	Sh.	Sh.
Apportioned annual fixed costs (Sh.)	3,375,000	4,125,000	7,500,000
Expected tickets to be sold	6,000	4,000	10,000

**Additional information:**

- All the assumptions of cost volume profit (CVP) analysis are valid.
- Total sales mix is currently generated by the two type of tickets in the following proportions:
  - Individual 60%
  - Family 40%

**Required:**

- Compute the weighted average contribution margin at the current sales mix assumed above. (2 marks)
  - Calculate the total number of tickets that Luxury Weekend County Park must sell to break-even. (2 marks)
  - The margin of safety in units for Luxury Weekend County Park. (2 marks)
  - Calculate the number of individual tickets and the number of family tickets that Luxury Weekend County Park must sell to break-even. (2 marks)
- (c) Ufanisi Enterprises outsource one of its raw materials branded “Oxla” externally. The annual sales demand for material “Oxla” is 30,000 units. The company is planning to switch its purchasing system to a just-in-time (JIT) purchasing system to improve efficiency.

The following information is provided:

	Current system	Proposed system
Purchase cost per unit (Sh.)	400	400
Ordering cost per order (Sh.)	80,000	28,000
Inventory holding cost	12%	-

**Additional information:**

- Inventory holding cost per annum is given as a percentage of purchases cost per unit.
- Under the proposed JIT system, the company does not hold any inventory whatsoever.
- The re-order quantity under the proposed JIT system is 4,000 units per order.

**Required:**

Advise the management of Ufanisi Enterprises on whether or not to switch to the proposed system. (6 marks)  
(Total: 20 marks)

**QUESTION FOUR**

- Summarise **FOUR** features of process costing. (4 marks)
- Vuna Ltd. are the manufacturers of chemicals for use in agricultural farms. One of their products passes through two processes; P and Q before it is completed and taken to a warehouse.

The following data relates to process Q for the month of march 2024:

- Opening work-in-progress 4,000 units  
Degree of completion and cost:
 

		Sh. “000”
Materials	100%	240,000
Labour	60%	144,000
Overheads	60%	72,000
- Units received from process P were 40,000 at a cost of Sh.1,700,550,000
- Additional cost during the period in process Q:
 

		Sh. “000”
Materials	759,000	
Labour	1,355,760	
Overheads	640,220	
- Closing work-in-progress was 3,000 units with the following degree of completion:
 

Materials	100%
Labour and overheads	50%



5. Units scrapped were 4,000 having the following degree of completion:
 

Materials	100%
Labour and overheads	80%
6. Normal process loss was 5% of the expected production.
7. Spoiled units realised Sh.15,000 for each unit.
8. The company uses FIFO method of valuation for the opening work-in-progress.

**Required:**

- (i) Determine units abnormally lost in process Q. (2 marks)
- (ii) Prepare a statement of equivalent units of production. (4 marks)
- (iii) Prepare a statement of cost. (4 marks)
- (iv) Prepare process Q account. (4 marks)
- (v) Prepare abnormal loss account. (2 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) Hawk Ltd. uses a standard absorption costing in its operations.

The following information is provided by the cost accountant:

	<b>Actual</b>	<b>Budgeted</b>
Selling price per unit (Sh.)	2,600	3,100
Variable cost per unit (Sh.)	1,000	1,000
Output and sales (units)	8,200	8,700
Total fixed overheads (Sh.)	4,510,000	5,220,000

**Required:**

- (i) Sales price variance. (2 marks)
  - (ii) Sales volume profit variance. (2 marks)
  - (iii) Fixed overhead volume variance. (2 marks)
- (b) A flexible budget is known to be more appropriate for control purposes than a fixed budget.

**Required:**

- (i) By distinguishing between a “fixed budget” and a “flexible budget”, explain whether you agree or disagree with the above statement. (3 marks)
  - (ii) Outline **THREE** benefits of budgetary control system in an organisation. (3 marks)
- (c) The following information relates to the projected activities of Detrix Ltd., a local manufacturing company for the year 2024:

	<b>Wages Sh.“000”</b>	<b>Materials purchased Sh.“000”</b>	<b>Overhead cost Sh.“000”</b>	<b>Sales Sh.“000”</b>
January	18,000	60,000	30,000	90,000
February	24,000	90,000	36,000	120,000
March	30,000	75,000	48,000	180,000
April	27,000	105,000	42,000	150,000
May	36,000	90,000	54,000	210,000
June	30,000	75,000	48,000	180,000
July	27,000	75,000	42,000	150,000
August	27,000	90,000	42,000	150,000

**Additional information:**

1. It is expected that cash balance on 30 April 2024 will be Sh.66,000,000.
2. Wages are paid within the month they are incurred.
3. Creditors for raw materials are paid three months after receipt.
4. Debtors are expected to pay two months after delivery.
5. Included in the overhead figure is Sh.6,000,000 per month which represents depreciation.
6. There is a one-month delay in paying the overhead expenses.
7. 20% of the monthly sales are on cash basis.

8. A commission of 5% is paid to agents on all the sales on credit, but this is not paid until the month following the sales to which it relates. This expense is not included in the overhead figure.
9. The company intends to repay a loan of Sh.75,000,000 on 31 May 2024.
10. A delivery is expected in the month of June 2024 of a new machine costing Sh.135,000,000 of which Sh.45,000,000 will be paid in each of the following months.
11. The company has an overdraft facility with banks.

**Required:**

A cash budget for the months of May, June and July 2024.

(8 marks)

**(Total: 20 marks)**

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**CPA INTERMEDIATE LEVEL**

**MANAGEMENT ACCOUNTING**

**TUESDAY: 5 December 2023. Morning Paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

**QUESTION ONE**

- (a) Discuss **THREE** essential features of a budget. (6 marks)
- (b) Godoro Ltd. supplies high quality mattresses. The company outsources these mattresses from a supplier in town. Godoro Ltd. estimates that the total inventory holding cost of one mattress per annum is as follows:

Cost	Percentage of purchase price per unit per annum (%)
Opportunity cost	5
Obsolescence cost	4
Storage charges	3
Handling cost	2
Insurance cost	<u>1</u>
	<u>15</u>

**Additional information:**

- The annual sales demand of the mattresses is 480 mattresses.
- Each mattress costs Sh.4,000 to purchase from the supplier.
- The ordering cost is Sh.6,250 per order.
- The supplier offers a 3% discount for orders of 120 mattresses and a discount of 5% for orders of 180 mattresses.

**Required:**

- (i) The economic order quantity (EOQ) of the mattresses. (2 marks)
- (ii) The cost minimising order size from the supplier. (4 marks)
- (c) Jeffy Ltd. has been manufacturing and selling three textile products. The following details are available for each of the three products:

Product	Cotton Sh. per unit	Linen Sh. per unit	Polyester Sh. per unit
Direct material	350	365	255
Direct labour	480	240	210
Variable production overheads	150	115	205
Fixed production overheads	<u>300</u>	<u>300</u>	<u>300</u>
Total cost per unit	1,280	1,020	970
Selling price	<u>1,600</u>	<u>1,340</u>	<u>1,300</u>
Net profit	<u>320</u>	<u>320</u>	<u>330</u>
Budgeted annual demand (units)	1,600	2,400	3,000

**Additional information:**

- Each direct labour hour is charged at Sh.120 for cotton, Sh.120 for linen and Sh.70 for polyester.
- The direct labour force is threatening to go on strike for two weeks. This means that only 10,100 hours will be available for production rather than the expected 20,200 hours.

**Required:**

If the strike goes ahead as planned, advise the management of Jeffy Ltd. on the product(s) that should be produced if profits are to be maximised. (8 marks)

**(Total: 20 marks)**

## QUESTION TWO

- (a) The Management Accountant of Almah Ltd. provided the following profit statement for the year ended 31 October 2023:

	Sh. "million"
Revenue	60
Total costs	(48)
Net profit	<u>12</u>

The contribution sales ratio is 50%.

### Required:

- (i) Calculate the break-even sales. (2 marks)
- (ii) Calculate the margin of safety. (2 marks)
- (b) The management of Almah Ltd. in (a) above is considering two options with a view to increase sales in the year 2024.

These options are:

**Option one:** Increase sales by 30% and incur a sales promotion campaign worth Sh.5 million.

**Option two:** Increase sales by 20% and reduce the selling price by 10%.

### Required:

- Advise the management of Almah Ltd. on the better option to implement. (4 marks)
- (c) Dimax College has been using their own van to transport students to and from college. The new principal feels this may be too expensive for the school. He suggests that the college could lease transport services from Gari Ltd. at a cost of Sh.308,000 per month.

The college accountant revealed the following information:

	Sh.
Cost of the van	7,000,000
Annual insurance	790,000
Annual repairs	440,000
Driver's monthly salary	90,000
Annual road licence	100,000
Transport levy per annum	154,000
Scrap value of the van	1,000,000
Tyres and tubes annual cost	126,000
Inspection cost per year	10,000
Petrol cost per kilometre	154

### Additional information:

- The van is estimated to cover 40,000 km per year. It has an estimated useful life of six years.
- A new traffic rule has been issued requiring all passenger vehicles including college vans to be fitted with speed governors and seat belts. This will cost Sh.40,000 per annum.
- Gari Ltd.'s monthly cost of Sh.308,000 is attributed as follows:

	Sh.
Van hire	220,000
Driver's salary	50,000
Maintenance fee	<u>38,000</u>
	<u>308,000</u>

### Required:

- (i) Compute the cost per kilometre if the college:
- Uses its own transport. (6 marks)
  - Hires transport services. (3 marks)
- (ii) Outline **THREE** other factors that the college might consider in choosing the best alternative. (3 marks)

(Total: 20 marks)

### QUESTION THREE

- (a) Differentiate between “overhead allocation” and “overhead absorption”. (4 marks)
- (b) Maono Ltd. has a budgetary activity level of 50,000 direct hours and budgeted production overheads of Sh.10,000,000. The following information was obtained from its three departments namely; A, B and C.
- Department A:** 50,000 direct hours are worked and the actual overheads were Sh.9,400,000.
  - Department B:** 43,000 direct hours are worked and the actual overheads were Sh.10,000,000.
  - Department C:** 45,000 direct hours are worked and the actual overheads were Sh.9,600,000.

**Required:**

Determine over or under absorption of overheads of each department.

(6 marks)

- (c) Tamu Ltd. is a company located in the Eastern part of the country and manufactures juices. The company plans to establish a subsidiary in western part of the country to produce mineral water. Tamu Ltd. estimates that the subsidiary can produce 40,000,000 bottles of water in the next one year.

The cost analysis for the subsidiary yielded the following estimates:

	Sh.“000”	Percentage of total annual cost that is variable (%)
Material cost	1,936,000	100
Labour cost	900,000	70
Overhead cost	800,000	64
Administrative cost	300,000	30

**Additional information:**

- The bottled water produced by the subsidiary will be sold by sales representatives who will receive a commission of 8% of the sales price.
- The subsidiary will operate independently in terms of costs and revenue.

**Required:**

- Compute the sales price per bottle to enable management realise an estimated 10% profits on sales proceeds in the subsidiary. (6 marks)
- Calculate the break-even point in value for the subsidiary on the assumption that the sales price is Sh.110 per bottle. (4 marks)

**(Total: 20 marks)**

### QUESTION FOUR

- (a) Melta Ltd. has just completed its first year in operation. The unit costs and selling price based on absorption costing basis are as follows:

<b>Standard cost and selling price:</b>		<b>Sh.</b>
Direct material	(2 kilograms at 350 per kilogram)	700
Direct labour	(0.5 hours at Sh.1,600 per hour)	800
<b>Production overhead:</b>		
Variable overheads	(0.5 hours at Sh.600 per hour)	300
Fixed overheads	(0.5 hours at Sh.900 per hour)	<u>450</u>
Standard production cost		2,250
Standard profit margin		<u>2,750</u>
Standard selling price		<u>5,000</u>

**Additional information:**

- Other budgeted costs during the period in relation to selling and distribution and administration were as follows:

	Variable costs	Fixed costs (Sh.)
Selling and distribution	10% of sales	9,000,000
Administration		12,300,000
- During the year, the company had the following activity levels:
  - Actual production was 24,000 units.
  - Units sold were 21,300 units.
- Actual fixed production overheads was Sh.300,000 less than absorbed fixed production overheads.
- Budgeted fixed selling and distribution overheads were Sh.50,000 less than the actual fixed overheads.
- Melta Ltd. used an expected activity level of 24,000 direct labour hours to compute the predetermined overhead rates.

**Required:**

Prepare the following operating statements:

- (i) Absorption costing profit or loss statement. (6 marks)
  - (ii) Marginal costing profit or loss statement. (6 marks)
  - (iii) A reconciliation statement for absorption and marginal profits. (2 marks)
- (b) Motomoto Ltd. operates standard costing system. The following budgeted information relates to its only product:

	Quantity	Unit price (Sh.)	Standard cost per unit (Sh.)
Direct material A	3 kilograms	140	420
Direct material B	2 kilograms	250	500
Direct labour	2 hours	105	110
Fixed overheads			<u>270</u>
Standard cost per unit			<u>1,300</u>

Budgeted production amounted to 800 units at a unit price of Sh.1,300.

Actual production data for the month of November 2023:

	Quantity	Sh.
Sales revenue	850 units	1,326,000
Direct material A	2,410 kilograms	(325,350)
Direct material B	1,000 kilograms	(270,000)
Direct labour	890 hours	(97,900)
Fixed overheads		<u>(229,500)</u>
Net profit		<u>403,250</u>

Actual output amounted to 850 units.

**Additional information:**

- Budgeted fixed overheads for its product is based on budgeted output of 800 units per month.
- Standard selling price was budgeted as Sh.1,600 per unit.
- There was no opening or closing inventory of direct material.

**Required:**

Flexible budget profit statement.

(6 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) Major policy decisions in business are based on cost factor and it is important to distinguish between controllable and non-controllable costs in decision making. However, the classification of cost as controllable and non-controllable depends on the point of reference.

**Required:**

- (i) With reference to the above statement, explain **TWO** possible uses of cost information to the management. (2 marks)
  - (ii) By distinguishing between “controllable costs” and “non-controllable costs”, discuss how the classification of cost as controllable and non-controllable depends on a point of reference. (4 marks)
- (b) Activity Based Costing (ABC) attempts to relate the incidence of costs to the level of activities undertaken.

**Required:**

In relation to the above statement, explain the following hierarchy of activities that are used in activity based costing system:

- (i) Unit level activities. (2 marks)
- (ii) Batch level activities. (2 marks)
- (iii) Product level activities. (2 marks)

- (c) ABC Ltd. produces and sells a single product Zed whose standard cost is as follows:

	Sh.
Direct material (15kgs at Sh.260 per kg)	3,900
Direct wages (5 hours at Sh.60 per hour)	300
Fixed production overheads	<u>500</u>
	<u>4,700</u>

**Additional information:**

1. The fixed overheads included in the standard cost is based on an expected monthly output of 1,000 units.
2. Fixed production overheads are absorbed on the basis of direct labour hours.
3. During the month of November 2023, the actual results were as follows:

Production	890 units
Material	12,100 units costing Sh.1,835,500
Direct wages	4,200 hours worked for Sh.241,500
Fixed production overheads	Sh.470,000

**Required:**

- (i) Material price variance and material wage variance. (4 marks)
- (ii) Labour rate variance and labour efficiency variance. (4 marks)

**(Total: 20 marks)**

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**CPA INTERMEDIATE LEVEL**  
**MANAGEMENT ACCOUNTING**

**TUESDAY: 22 August 2023. Morning Paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

**QUESTION ONE**

- (a) Explain **THREE** limitations of financial accounting which are addressed by management accounting. (6 marks)
- (b) Distinguish between a “cost centre” and a “profit centre” as used in responsibility accounting. (4 marks)
- (c) The Management Accountant of Unga Safi Millers has presented the following data on machine hour and electricity consumption for the last 6 months:

Month	Machine Hours (“000”)	Electricity expense (Sh.“000”)
June	78	1,800
July	78	1,500
August	93	1,590
September	105	1,650
October	129	1,740
November	144	2,040

**Required:**

- (i) Using High-Low method of cost estimation, develop a predictor equation in the form of  $Y=a+bx$ . (4 marks)
- (ii) Determine the total electricity expense at 120,000 machine hours. (2 marks)
- (iii) Explain **TWO** limitations of adopting High-low method in cost estimation. (4 marks)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) Explain **FOUR** reasons for budgeting in a business. (4 marks)
- (b) Tazam Ltd. is developing a cost accounting system. Initially it has been decided to create four centres: Accommodation deals with guests, Kitchen prepares meals while Tours and Entertainment are internal service recreation centres.

The following overheads details have been estimated for the month of August 2023:

Type of overhead	Sh.“000”
Rent and taxes	75,000
General lighting	30,000
Indirect wages	150,000
Petrol and engine oil	88,500
Depreciation on tour buses	<u>500,000</u>
	<u>843,500</u>

The following information is also available:

	Total	Accommodation	Kitchen	Tours	Entertainment
Direct wages (Sh.“000”)	500,000	150,000	100,000	150,000	100,000
Floor area (m <sup>2</sup> )	100,000	30,000	25,000	20,000	25,000
Value of tour buses (Sh.“000”)	1,250,000	350,000	650,000	150,000	100,000
Lighting points	60	20	15	10	15
Number of petrol fillings	150	40	50	60	-



**Additional information:**

1. In August 2023, it is estimated that there will be 20 guest-nights in Accommodation and 480 meals will be served in the Kitchen.
2. Secondary allocation of overheads is as follows:

Cost centre	Accommodation	Kitchen	Tours	Entertainment
Tours	60%	30%	-	10%
Entertainment	50%	30%	20%	

**Required:**

- (i) Prepare an overhead analysis statement (OAS) showing primary allocation to each centre. (10 marks)
  - (ii) Secondary allocation of the internal service recreation centre costs to production departments using simultaneous method. (4 marks)
  - (iii) Calculate the appropriate overhead absorption rates for Accommodation and Kitchen. (2 marks)
- (Total: 20 marks)**

**QUESTION THREE**

- (a) Urembo Lifestyles offers three different types of body grooming and fitness services. These are: salon, gym and barber shop using the same staff. Various estimates for the next year have been made as follows:

Service	Salon Sh. per client	Gym Sh. per client	Barber shop Sh. per client
Service fee	300	390	200
Variable material costs	140	180	100
Variable labour costs	60	100	50
Fixed overhead costs	90	120	40
Labour hours per client	2 hours	3 hours	1.5 hours

**Additional information:**

1. Total fixed cost for the next year is expected to be Sh.400,000.
2. The budgeted maximum demand of clients for the next year for the services is estimated as follows:
  - Salon 3,000 clients
  - Gym 1,000 clients
  - Barber shop 1,500 clients
3. Urembo Lifestyles has a maximum of 9,900 labour hours available next year.

**Required:**

- (i) If the business were to offer salon services only, calculate the break-even number of clients. (3 marks)
  - (ii) Prepare the limiting factor mix schedule to show the number of clients per service that maximises profitability. (6 marks)
  - (iii) The maximum net profit achievable based on service mix determined in (a) (ii) above. (3 marks)
- (b) Sigma Ltd. operates a standard marginal costing system. The following data has been collected for the month of July 2023 for its main product branded "SGM":

Actual costs incurred:	Sh. "000"
Direct material (1,188 kilograms)	11,286
Direct labour (5,760 hours)	41,760
Variable production overheads	12,096
Fixed production overheads	48,600

Variances:	Sh. "000"
Direct material price variance	594 Favourable
Direct material usage variance	1,080 Adverse
Direct labour rate variance	1,440 Adverse
Direct labour efficiency variance	2,520 Adverse
Variable overhead expenditure variance	576 Adverse
Variable overhead efficiency variance	720 Adverse
Fixed overhead expenditure variance	900 Favourable
Fixed overhead volume variance	4,500 Favourable

**Additional information:**

1. Variable production overheads are absorbed based on actual hours worked.
2. There was no significant difference in opening and closing work in progress.
3. Actual production of product SGM was 1,080 units in the month of July 2023.

**Required:**

Prepare a standard product cost sheet for one unit of product SGM.

(8 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) Explain **THREE** factors that might be considered before choosing a suitable method for labour remuneration. (6 marks)
- (b) Mars Bottlers Ltd manufactures and sells four products. Details of the four products and relevant information are given below for the month of August 2023:

Product	A01	B02	C03	D04	Total
Output units	1,200 units	1,000 units	800 units	1,200 units	4,200 units
Machine hours per unit	4 hours	3 hours	2 hours	3 hours	12 hours
Production runs	6	5	4	6	21
Requisitions raised	20	20	20	20	80
Orders executed	12	10	8	12	42
<b>Cost per unit:</b>	<b>Sh.</b>	<b>Sh.</b>	<b>Sh.</b>	<b>Sh.</b>	
Direct material	3,300	4,125	2,475	4,950	
Direct labour	2,310	1,980	1,155	1,815	

**Additional information:**

1. Currently production overheads are absorbed based on conventional machine hour basis although the management is proposing the adoption of activity-based costing (ABC) technique.
2. The production overheads for the period have been analysed as follows together with ABC cost drivers:

Cost element	Sh. "000"	Cost driver
Machinery cost centre	10,430	Total machine hours
Set-up costs	5,250	Number of production runs
Stores receiving costs	3,600	Requisitions raised
Inspection costs	2,100	Number of production runs
Material handling costs	<u>4,620</u>	Orders executed
	<u>26,000</u>	

**Required:**

Compute a budgeted unit cost and total cost using:

- (i) Conventional technique. (6 marks)
- (ii) Activity based costing (ABC) technique. (8 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) The analysis of total cost into its behavioural elements is essential for effective cost and management accounting.

With reference to the above statement, enumerate **FOUR** cost behaviour patterns.

(4 marks)

- (b) Hard Board Ltd. produces a product that passes through three processes. The data about refining process is as follows:

1. Opening work in progress was 900 units at a total cost of Sh.45,000,000. The degree of completion is as follows:
  - Direct material 100%
  - Direct labour 40%
  - Production overheads 60%
2. Data about refining process is as follows:
  - Input of raw materials is 9,100 units for Sh.273,000,000
  - Direct labour is Sh.125,700,000
  - Production overheads is Sh.81,000,000

3. Finished units transferred to finished stores were 7,800 units.
4. Normal scrap loss was 10% of input units and the scrapped units realised Sh.30,000 per unit.
5. Units scrapped were 1,200 units with the following degrees of completion:
  - Direct material 100%
  - Direct labour 70%
  - Production overheads 70%
6. Closing work in progress was 1,000 units with the following degrees of completion:
  - Direct material 100%
  - Direct labour 80%
  - Production overheads 70%
7. Hard Board Ltd. uses first in first out (FIFO) method.

**Required:**

Prepare the following:

- (i) Statement of equivalent units of production. (6 marks)
- (ii) Statement of cost. (4 marks)
- (iii) Statement of valuation. (3 marks)
- (iv) Refining process account. (3 marks)

**(Total: 20 marks)**

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**CPA INTERMEDIATE LEVEL**  
**MANAGEMENT ACCOUNTING**

**TUESDAY: 25 April 2023. Morning Paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

**QUESTION ONE**

- (a) Explain **THREE** benefits of maintaining a cost database. (6 marks)
- (b) ABC Ltd. applies joint process costing in the production process of two joint products; AX and AY. The following information was gathered for the two joint products:

Joint Products	Production Kgs	Selling price at split-off point (Sh. per kg)	Separation cost if sold at split-off (Sh. per kg)	Separation costs if processed further (Sh. per kg)
AX	322,000	435.90	125.90	42
AY	600,000	350.90	44.90	28

ABC Ltd. incurred the following joint costs:	<b>Sh. "000"</b>
Conversion costs	125,000
Curing cost	80,000
Fermentation cost	<u>120,000</u>
Total joint cost	<u>325,000</u>

**Required:**

Calculate the total profit or loss per product if joint costs are allocated to product AX and AY on the basis of:

- (i) Sales value at split-off point. (4 marks)
- (ii) Net realisable value at split-off point. (4 marks)
- (c) Digital Television Ltd. manufactures digital televisions. The main component used in making digital televisions is the fluorescent bulbs. For each digital television manufactured, 12 bulbs are required. The company manufactures 15,000 digital televisions per year. It costs Sh.200 each time the bulbs are ordered and the carrying cost are Sh.8 per bulb per year.

**Required:**

- (i) Determine the economic order quantity of bulbs. (3 marks)
- (ii) Calculate the number of times per year the bulbs will be ordered assuming 360 days in a year. (3 marks)
- (Total: 20 marks)**

**QUESTION TWO**

- (a) In the context of labour remuneration, highlight **FOUR** causes of labour turnover. (4 marks)
- (b) Ezekiel Mutinda, a sole trader, prepares three types of cakes branded HBL1, HBL2 and HBL3 in two production cost centres and two service centres. The production centres are mixing cost centre and baking cost centre while the service centres are distribution department and canteen department.

The following is the budgeted production data and production cost for the year ending 31 December 2023:

	<b>Product</b>		
	<b>HBL1</b>	<b>HBL2</b>	<b>HBL3</b>
Production	3,300 units	7,100 units	1,650 units
	<b>Sh. per unit</b>	<b>Sh. per unit</b>	<b>Sh. per unit</b>
Direct material cost	130	150	160
Direct labour:			
Mixing cost centre	75	60	50
Baking cost centre	90	50	180
Mixing machine hours per unit	6	3	4

The budgeted overheads for the year are as follows:

Department	Mixing	Baking	Distribution	Canteen	Total Sh.
Allocated overheads (Sh.)	376,975	243,925	166,000	266,500	1,053,400
Rent and rates					170,000
Depreciation of machine					300,000

**Additional information:**

- The budgeted overheads for the year are to be allocated on the following basis:

Department	Mixing	Baking	Distribution	Canteen
Net book value of machine (Sh.)	1,500,000	750,000	300,000	450,000
Floor space occupied (square metre)	3,600	1,400	1,000	800

- Secondary reapportionment is allocated using step-wise method on the following basis:

Service department	Mixing	Baking	Distribution	Canteen
Distribution	70%	30%	-	-
Canteen	55%	45%	-	-

**Required:**

- An overhead analysis sheet (OAS) showing both primary and secondary apportionment. (4 marks)
- Total machine hours for mixing cost centre. (2 marks)
- A machine hour overhead absorption rate (OAR) for mixing cost centre. (2 marks)
- A rate expressed as a percentage of direct labour cost for the baking cost centre. (4 marks)
- Calculate the budgeted total cost per unit of product HBL1 (4 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- Outline **FOUR** factors influencing stock levels in inventory management. (4 marks)
- Highlight **FOUR** purposes of cost estimation to a service company such as a hospital. (4 marks)
- Relei Ltd. is currently following a centralised material storage system. The company is in the process of preparing its cash budget for the second-quarter of the year 2023 and has availed the following data:

Month	Sales Sh. "000"	Material purchases Sh. "000"	Production overheads Sh. "000"	Selling overheads Sh. "000"	Salaries and wages Sh. "000"
January	144,000	50,000	12,000	11,000	20,000
February	200,000	62,000	12,300	12,400	24,000
March	180,000	50,500	13,000	15,500	20,000
April	150,000	60,600	17,500	18,900	36,000
May	205,000	74,000	17,700	22,000	40,000
June	208,000	76,800	16,400	23,200	48,000

**Additional information:**

- Cash sales are 60% of the total sales. The remaining sales are collected equally during the following two months.
- Assets are to be acquired in the month of April 2023 and May 2023. Therefore, provisions should be made for payment of Sh.16,000,000 and Sh.65,000,000 for the same.
- An application has been made to the bank for the grant of a loan of Sh.45,000,000 and it is hoped that the loan will be received in the month of May 2023.
- Creditors for materials purchased are granted one-month credit after month of purchase.
- Monthly production overheads include depreciation of Sh.5,000,000 per month.
- Selling overheads are paid one month after the month in which the overhead occurred.
- Salaries commission at 3% on sales is paid to the salesmen each month.
- Salaries and wages are paid monthly at the end of the month.
- An advance tax of Sh.20,000,000 is due in April 2023.
- The cash balance as at 1 April 2023 is estimated as Sh.144,500,000.

**Required:**

A cash budget for the second quarter of the year commencing 1 April 2022 to 30 June 2023.

(12 marks)

**(Total: 20 marks)**

#### QUESTION FOUR

(a) Discuss **FOUR** limitations that a firm might encounter when operating a marginal costing system. (8 marks)

(b) Grate Ltd. manufactures and sells a single product branded “GL”. The cost data for the product is as follows:

<b>Variable cost per unit:</b>	<b>Sh.</b>
Direct materials	60
Direct labour	120
Variable production overhead	40
Fixed production overhead	80
Variable selling overhead	<u>30</u>
	<u>330</u>
<b>Fixed cost per month:</b>	<b>Sh.</b>
Fixed production overhead	2,400,000
Fixed selling overhead	<u>1,800,000</u>
	<u>4,200,000</u>

**Additional information:**

- The product is sold for Sh.400 per unit.
- Grate Ltd. budgeted to produce and sell 30,000 units per month.
- Actual production and sales units for the months of January 2023 and February 2023 are as follows:

	<b>Production (units)</b>	<b>Sales (units)</b>
January	30,000	26,000
February	30,000	34,000

- There was no opening inventory or work-in-progress as at the start of January 2023.

**Required:**

Prepare profit or loss statements based on:

(i) Marginal costing technique. (6 marks)

(ii) Absorption costing technique. (6 marks)

**(Total: 20 marks)**

#### QUESTION FIVE

(a) Quivo Ltd. manufactures and sells a single product branded “QV”. The following information relates to product “QV” for the month of March 2023:

	<b>Sh. per unit</b>
Materials	800
Conversion costs (variable)	600
Selling price	2,000

**Additional information:**

- The dealer’s margin is equivalent to 10% of the selling price.
- The total fixed cost during the period was Sh.25,000,000.
- The sales department indicates that the current sales during the period amounted to 90,000 units.
- The production capacity utilisation is at 60%.

The company has in the recent past faced an acute competition that has negatively affected the sales targets. The Marketing Manager has presented the following two options for increasing sales:

Option A: Reducing sales price by 5%.

Option B: Increasing dealers’ margin by 25% over the existing rate.

**Required:**

Recommended the option the company should adopt if the company desires to maintain the present profit. (8 marks)

(b) Dex Ltd. manufactures a single product branded “XV”. The company operates a standard marginal costing system.

The following information for the month of March 2023 is availed to you:

- The budgeted production and sales for the month amounted to 6,000 units.
- The standard selling price of product “XV” per unit is Sh.13,200.
- The variable standard manufacturing costs per unit are as follows:

		<b>Sh.</b>
	Direct materials (2.5 kgs at Sh.1,690 per kg)	4,225
	Direct labour (1.25 hours at Sh.1,880 per hour)	2,350
	Variable production overhead (1.25 direct labour hours at Sh.1,340 per hour)	1,675
4.	The actual results for the month of March 2023 were as follows:	
	Production in units	6,380
		<b>Sh. "000"</b>
	Sales (5,640 units)	81,075
	Direct materials purchased and used (14,730 kgs)	27,987
	Direct labour (8,535 hours)	15,363
	Variable production overheads	8,974
5.	The variable production overheads are absorbed on the basis of direct labour hours.	
6.	The opening and closing inventories of finished goods are valued at the standard variable manufacturing cost per unit.	

**Required:**

Compute the following variances:

- |       |                            |                          |
|-------|----------------------------|--------------------------|
| (i)   | Sales price.               | (2 marks)                |
| (ii)  | Sales volume contribution. | (2 marks)                |
| (iii) | Direct material price.     | (2 marks)                |
| (iv)  | Direct material usage.     | (2 marks)                |
| (v)   | Direct labour rate.        | (2 marks)                |
| (vi)  | Direct labour efficiency.  | (2 marks)                |
|       |                            | <b>(Total: 20 marks)</b> |
- .....



**CPA INTERMEDIATE LEVEL**

**MANAGEMENT ACCOUNTING**

**TUESDAY: 6 December 2022. Morning Paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

**QUESTION ONE**

- (a) Outline **SIX** benefits that would accrue to an organisation that encourages employees to participate in budget preparation. (6 marks)
- (b) Highlight **FOUR** benefits of continuous stock taking to a company. (4 marks)
- (c) Babu Ltd. places orders for one of the components used in its manufacturing process. The price of the component has been fluctuating thus affecting the production of the final product and hence eroding market confidence of the company's clients. The company's accountant has presented the following quantity ranges and respective price of the component which he believes would result in a cost saving to the company:

Range number	Quantity range	Prices per unit of the component
	Units	Sh.
I	1 – 6,000	420
II	6,001 – 10,000	380
III	10,001 – 14,000	340
IV	14,001 – 18,000	310
V	18,001 and above	260

**Additional information:**

- The company's annual demand is 60,000 units.
- The ordering cost per order is Sh.50,000.
- The holding cost is 20% of the purchase price
- The company practices continuous stock taking throughout the year.

**Required:**

Advise the company on the quantity range that would yield the highest cost savings.

(10 marks)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) Explain the meaning of the following types of inventory costs:
- (i) Out of pocket costs. (2 marks)
- (ii) Set-up costs. (2 marks)
- (iii) Opportunity costs. (2 marks)
- (b) Lengo Ltd. manufactures and sells two products L and G to a number of customers. The company is currently preparing its budget for the year ending 31 December 2023.



The cost, selling prices and demand units details for its two products are as follows:

Product	L Sh.	G Sh.
Selling price per unit	2,000	2,100
Variable costs per unit:		
Direct material Q (Sh.25 per litre)	200	250
Direct material T (Sh.40 per litre)	400	200
Direct labour (Sh.140 per hour)	280	350
Overhead (Sh.40 per hour)	160	200
Fixed production cost per unit	400	500
	<b>Units</b>	<b>Units</b>
Maximum sales demand for the month	1,000	3,000

**Additional information:**

1. The fixed production cost per unit is based upon an absorption rate of Sh.200 per direct labour hour and total annual production activity is 90,000 direct labour hours. One-twelfth ( $\frac{1}{12}$ ) of the annual fixed production cost will be incurred.
2. In addition to the above costs, non-production overhead costs are expected to be Sh.577,500.
3. During the period, the availability of material Q is expected to be limited to 31,250 litres.
4. It is the policy of Lengo Ltd not to hold inventory of finished goods

**Required:**

- (i) Compute the shortfall in litres for material Q. (3 marks)
  - (ii) The optimal production mix based on priority ranking. (7 marks)
  - (iii) The net profit at optimal production mix. (4 marks)
- (Total: 20 marks)**

**QUESTION THREE**

- (a) TQM Ltd. is a manufacturing company that makes three products namely; T, Q, and M. The data for the period ended 30 November 2022 is given as follows:

	T	Q	M
Units produced and sold	12,000	16,000	8,000
	<b>Sh.</b>	<b>Sh.</b>	<b>Sh.</b>
Sales price per unit	50	70	60
Direct material cost per unit	16	24	20
Direct labour cost per unit	8	12	8
<b>Production overheads costs</b>	<b>Total</b>	<b>Cost drivers</b>	
	<b>Sh.</b>		
Machining costs	102,000	Machine hours	
Production scheduling	84,000	Number of production runs	
Set-up costs	54,000	Number of production runs	
Quality control	49,200	Number of production runs	
Receiving materials	64,800	Number of component receipts	
Packing materials	36,000	Number of customer orders	
	<u>390,000</u>		

**Information on the cost driver is given as follows:**

	T	Q	M
Direct labour hours per unit	1	1½	1
Machine hours per unit	½	1	1½
Number of components per unit	3	5	8
Number of component receipts	18	80	64
Number of customer orders	6	20	10
Number of production runs	6	16	8

**Required:**

Using activity-based costing (ABC), determine the cost and gross profit per unit for each product during the period. (10 marks)

- (b) Bingwa Ltd. operates a premium bonus system where workers receive a guaranteed basic hourly minimum rate of pay plus a bonus of 50% of the time saved.

The following data is provided for the last week of November 2022:

Particulars	Bella	Chali	Dan
Time rate (Sh. per hour)	300	280	320
Units produced	2,500 units	2,200 units	2,600 units
Time allowed for 100 units	2 hours 36 minutes	2 hours 30 minutes	2 hour 30 minutes
Time taken	55 hours	58 hours	54 hours
Rejected units	100 units	40 units	200 units

**Additional information:**

- No payment is made beyond the time allowed.
- The bonus which is paid at the basic hourly rate is applicable to the accepted output only.
- No penalty is imposed on rejected output.

**Required:**

From the above information, calculate for each employee:

- Bonus hours and amount of bonus earned. (6 marks)
  - Labour cost for each good unit produced. (4 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- Explain **FOUR** arguments in favour of marginal costing system. (8 marks)
- Quota Ltd manufactures and sells a single product branded "TT" with a standard cost of Sh.1,100 made up as follows:

	Sh.
Direct materials (15 square metres at Sh.30 per square metre)	450
Direct labour (5 hours at Sh.100 per hour)	500
Variable overheads (5 hours at Sh.20 per hour)	100
Fixed overheads (5 hours at Sh.10 per hour)	50

The standard selling price per unit is Sh.1,300. The monthly budget projects production and sales of 1,000 units.

Actual figures for the month of November 2022 are as follows:

- Sales 1,200 units at Sh.1,320 per unit.
- Actual production 1,400 units.
- Direct materials 22,000 square metres at Sh.40 per square metre.
- Direct wages 6,800 hours at Sh.110.
- Variable overheads was Sh.110,000.
- Fixed overheads was Sh.60,000.

**Required:**

- Material price variance and material usage variance. (4 marks)
  - Labour rate variance and labour efficiency variance. (4 marks)
  - Fixed overhead capacity variance and fixed overhead efficiency variance. (4 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- Summarise **FOUR** salient features of process costing systems. (4 marks)
- Highlight **SIX** benefits that a firm would derive from establishing a good cost accounting system. (6 marks)

- (c) Ocean Ltd. is preparing its budget for the year ending 30 June 2023.

It is decided to estimate an equation of the form,  $Y = a + bx$ ,

Where;

$Y$  is the total maintenance expense at an activity level  $x$ .

$a$  is the fixed maintenance expense.

The following information relate to the year ending 30 June 2023:

Month	Machine hours	Maintenance Cost (Sh.‘000’)	Month	Machine hours	Maintenance Cost (Sh.‘000’)
September 2022	400	960	February 2023	240	640
October 2022	240	880	March 2023	160	560
November 2022	80	280	April 2023	480	1,350
December 2022	400	1,200	May 2023	320	660
January 2023	320	800	June 2023	160	440

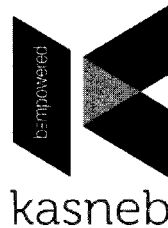
**Required:**

- (i) Estimate the total cost function using the ordinary least squares method. (8 marks)

- (ii) Determine the total cost if 1,050 machine hours were applied. (2 marks)

**(Total: 20 marks)**

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**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:

Period	Total production cost (Sh. "000")	Level of activity (Units produced)
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:

Batch	A	B	C	D
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>	Sh.	Sh.	Sh.	Sh.
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	3,524,470	1,721,800	1,937,410	635,600
<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	1	Process 2	3
	Sh.	Sh.	Sh.	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:
 

	Litres
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:
 

	Price per unit (Sh.)
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)**

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**CPA INTERMEDIATE LEVEL**  
**MANAGEMENT ACCOUNTING**

**WEDNESDAY: 6 April 2022. Morning paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

**QUESTION ONE**

- (a) Cost accounting uses information provided by financial accounting together with other details of internal operations of an organisation.

With reference to the above statement, describe three similarities between cost accounting and financial accounting. (6 marks)

- (b) Rengo Ltd. has provided the following data for the financial year 2022:

1. Budgeted output for the year 9,800 units
2. Standard details for one unit:
  - Direct materials 40 square metres at Sh.530 per square metre.
  - Direct labour costs:
    - Bonding cost centre 48 hours at Sh.250 per hour
    - Finishing cost centre 30 hours at Sh.190 per hour
3. Budgeted costs and hours per annum:
  - **Variable overhead:**

	Hours	Sh.
Bonding cost centre	500,000	3,750,000
Finishing cost centre	300,000	1,500,000
  - **Fixed overhead:**

Production	39,200,000
Selling and distribution	19,600,000
Administration	9,800,000

**Required:**

Prepare a standard cost statement of a unit cost showing:

- (i) Prime cost. (2 marks)
  - (ii) Variable production cost. (2 marks)
  - (iii) Total cost. (2 marks)
  - (iv) Selling price per unit at a notion profit of 15% on cost. (2 marks)
- (c) Jambo Ltd. manufactures bracelets for export trade. The sales revenue is dependent on level of advertising expenditure per month. The company has recorded the following sales information for the past six months:

Month	Advertising expenditure Sh."000"	Sales revenue Sh. "000"
1	1.5	30
2	2	27
3	1.75	25
4	3	40
5	2.5	32
6	2.75	38

The following has also been calculated:

$\Sigma(\text{Advertising expenditure})$	=	Sh.13,500
$\Sigma(\text{Sales revenue})$	=	Sh.192,000
$\Sigma(\text{Advertising expenditure} \times \text{Sales revenue})$	=	Sh.447,250,000
$\Sigma(\text{Sales revenue}^2)$	=	Sh.6,322,000,000
$\Sigma(\text{Advertising expenditure}^2)$	=	Sh.32,125,000



**Required:**

Estimate fixed and variable elements of the sales revenue using the least squares regression analysis. (6 marks)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) Discuss four circumstances under which time-based labour remuneration system is deemed to be more appropriate than the output based system. (8 marks)
- (b) The following data relate to a particular stock item of Magala Ltd. The company's management is in the process of setting its stock levels as a way to address the escalating stock handling costs.

The following information is provided:

Normal usage per day	1,100 units
Minimum usage per day	500 units
Maximum usage per day	1,400 units
Lead time	25 - 30 days
Economic order quantity (previously calculated)	50,000 units

**Required:**

Compute the following:

- (i) Re-order level. (2 marks)
- (ii) Maximum stock level. (4 marks)
- (iii) Minimum stock level. (4 marks)
- (iv) Average stock level. (2 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) Discuss four challenges that you are likely to encounter when installing a costing management system. (8 marks)
- (b) The following information is provided in relation to Baridi Kuu Ltd. The annual demand of its product branded 'D' is 30,000 units. The ordering cost per order is Sh.2,500. The holding cost is expressed as a percentage of purchase price at 20%.

The following price ranges are given with their respective quantities:

Range	Quantities (Units)	Price (Sh.)
1	1-3,000	21
2	3,001-5,000	19
3	5,001-7,000	17
4	7,001-9,000	15.50
5	9,001-10,000	13

**Required:**

Advise the company on the quantity to purchase.

(6 marks)

- (c) Seek Plastics Ltd. manufactures plastic components for water pumps.

The following budgeted information is available for three of their key plastic components:

	W Sh. per unit	X Sh. Per unit	Y Sh. Per unit
Selling price	200	183	175
Direct materials	50	40	35
Direct labour	30	35	30
Units produced and sold	10,000	15,000	18,000

**Additional information:**

1. The total number of activities for each of the three products for the period is as follows:

		Product		
	W	X	Y	
Number of purchase requisitions	1,200	1,800	2,000	
Number of set ups	240	260	300	

2. Overhead costs have been analysed as follows:

Receiving/ inspecting quality assurance	Sh.1,400,000
Production scheduling/ machine set up	Sh.1,200,000

**Required:**

Determine the budgeted profit per unit of each of the three products using Activity Based Costing (ABC) method.  
(6 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) Distinguish between “marginal costing” and “absorption costing” techniques. (4 marks)
- (b) Bahati Limited operates a chemical process which produces four different products namely C, F, T and S from the input of raw materials plus water.

**Budget information for the forthcoming financial year is as follows:**

	<b>Sh. “000”</b>
Raw materials cost	268
Initial processing cost	264
Conversion cost	200

<b>Product</b>	<b>Output (litres)</b>	<b>Sales (Sh.000)</b>	<b>Additional processing cost (Sh.000)</b>
C	400,000	768	160
F	90,000	232	128
T	5,000	32	-
S	9,000	240	8

**Additional information:**

- The company’s policy is to apportion the costs prior to the split-off point on a method based on net realisable value (NRV).
- Currently, the intention is to sell product T without further processing, but to process the other three products after the split-off point.
- An alternative strategy is being proposed so as to sell all the four products at the split-off point without further processing. If this were done, the selling prices obtainable would be as follows:

<b>Product</b>	<b>Selling price per litre (Sh.)</b>
C	1.28
F	1.60
T	6.40
S	20

**Required:**

- Budgeted profit statement showing the profit or loss for each product assuming the current processing policy is adopted. (8 marks)
- The profit or loss by product, and in total, assuming the alternative strategy was to be adopted. (8 marks)

**(Total: 20 marks)**

### QUESTION FIVE

- (a) Smart products Ltd. operates standard costing and budgetary control system.

The following is the company's standard cost card:

	Sh.
Direct materials	120
Direct labour	60
Variable overheads	20
Fixed overheads	30
Standard cost per unit	230
Standard profit per unit	20
Standard selling price per unit	250

#### Additional information:

- Each unit requires 3 kgs of material which cost Sh.40 per kg and 45 minutes of direct labour at a rate of Sh.80 per hour.
- Variable overheads are recovered on direct labour hour basis.
- Fixed overhead are absorbed on annual production budget of 180,000 units.
- For the year to 31 March 2022, 120,000 units had been manufactured and sold. Contrary to the managements expectation, the company's profit and loss statement reflected a loss of Sh.1,380,000 instead of the expected profit of Sh.3,6000,000 as provided below:

	(Sh.000)	(Sh.000)
Sales (120,000 units)		22,800
<b>Production cost:</b>		
Direct materials (100,000kgs)	12,000	
Direct labour (52,000 hours)	3,900	
Variable overheads	2,880	
Fixed overheads	5,400	24,180
Profit (loss)		(1,380)

#### Required:

- Budgeted profit and loss account for the year ended 31 March 2022. (6 marks)
  - Flexible budget for the production achieved. (6 marks)
- (b) Wasiri Ltd. produces 10,000 units per annum by employing 50% of the total factory capacity.

The selling price per unit is Sh.500 and the total costs are as follows:

	Sh."000"
Materials	1,000
Wages	2,000
Fixed overheads	1,000
Fixed Overheads	400
Total costs	4,400

#### Additional information:

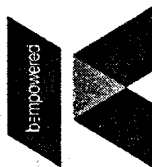
- Variable overheads maintains a constant ratio to the number of units produced.
- The production manager is evaluating acceptance of a special offer of additional 10,000 units at a selling price of Sh.387.50 each.
- The increased volume of purchases will reduce the material price by 2.5%.
- The wage rates will remain constant but due to employment of new workers, there will be a drop in labour efficiency by 5% on all production.

#### Required:

- Prepare a statement showing the variation of net profits resulting from the acceptance of the order. (6 marks)
- Advise the management of Wasiri Ltd. on whether to accept the offer. (2 marks)

(Total: 20 marks)

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**CPA INTERMEDIATE LEVEL**

**MANAGEMENT ACCOUNTING**

**FRIDAY: 17 December 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) Blade Ltd. manufactures a range of electronic products. The supplier of component X has informed Blade Ltd. that it will offer a quantity discount of 1% if Blade Ltd. places an order of 10,000 components or more at any time. Details of component X are as follows:

Cost per component before discount	Sh.20
Annual purchases	150,000 components
Ordering costs	Sh.360 per order
Holding costs	Sh.3 per component per annum

**Required:**

- (i) Economic order quantity (EOQ). (2 marks)
- (ii) Annual ordering cost and holding costs of inventory of component X using the economic order quantity (EOQ) computed in (a) (i) above. (4 marks)
- (iii) Advise the management of Blade Ltd. whether the discount should be accepted. (4 marks)
- (b) Usenge Products Ltd. manufactures and retails products A, B and C.

The company has 120 workers who work under a group bonus scheme. The workers are categorised into three grades and are paid a bonus of the excess of time allowed over time taken.

The bonus paid is 80% of the workers' base rate and is shared by the workers in the proportion of time spent on the job. The following production data has been extracted from the company's records for the month of November 2021.

Product	Units produced	Time allowed per unit (Minutes)
A	640	63
B	1,280	120
C	2,400	100

Grade of worker	Number of direct workers	Basic rate per hour	Hours worked per worker
1	40	300	30
2	16	270	64
3	64	240	50

**Required:**

- (i) Percentage of hours saved to hours taken. (3 marks)
- (ii) Bonus due to the group. (3 marks)
- (iii) Gross earnings due to the group. (4 marks)
- (Total: 20 marks)**

**QUESTION TWO**

- (a) (i) Using relevant examples, distinguish between a "joint product" and a "by-product". (4 marks)
- (ii) Zaidi Industries Ltd. produces two products branded A and B from the same material. The cost of material is Sh.9.50 per kg and the two products appear after Process I.

Product A can be sold directly to the market but product B requires further processing in Process II.

The following data relate to the month of October 2021:

Process	Materials Sh.	Labour Sh.	Overheads Sh.	Total Sh.
I	1,440,000	210,000	150,000	1,800,000
II	-	100,000	180,000	280,000
	<u>1,440,000</u>	<u>310,000</u>	<u>330,000</u>	<u>2,080,000</u>

Product	Quantity sold (Kgs)	Closing stock (Kgs)	Sales (Sh.)
A	30,000	15,000	525,000
B	45,000	-	1,507,500

**Additional information:**

- There were no materials on hand at the end of the month of October 2021.
- The company uses the sales value method of apportionment for joint costs.

**Required:**

Determine the total cost of Products A and B.

(8 marks)

- (b) The following data was provided by the cost accountant of Miradi Ltd. relating to marketing expenses and sales for a period of first eight months of the financial year ending 31 December 2021.

Month	1	2	3	4	5	6	7	8
Total marketing expenses (Sh."000")	265	302	222	240	362	295	404	400
Sales units (000)	20	24	16	18	26	22	32	30

Preliminary calculations have established the following analysis using the equation in the form of  $y = a + bx$

$\Sigma(\text{sales unit})$	=	4,640 million
$\Sigma(\text{total marketing expenses})^2$	=	Sh.809,598 million
$\Sigma(\text{total marketing expenses} \times \text{sales units})$	=	Sh.61,250 million

**Required:**

Predict the total marketing expenses for the ninth month when planned sales are 44,000 units.

(8 marks)

(Total: 20 marks)

**QUESTION THREE**

- (a) The Cost Accountant of ABC Ltd. has provided the following information relating to production of a single product branded "Zed":

	Period 1	Period 2	Period 3
Production (Kgs)	30,000	38,000	27,000
Sales (Kgs)	30,000	27,000	38,000
Opening stock (Kgs)	-	-	11,000
Closing stock (Kgs)	-	11,000	-

**Additional information:**

- The financial details for one unit of product "Zed", based on a normal activity level of 30,000 Kgs is as follows:

	Cost per Kg (Sh.)
Direct material	1.50
Direct labour	1.00
Production overheads (300% of labour)	<u>3.00</u>
Total cost	<u>5.50</u>

- The selling price of product "Zed" is Sh.9 per kg
- Administrative overheads are fixed at Sh.25,000 per period whereas one third of production overheads are fixed.

**Required:**

Prepare operating statement using:

- Variable costing. (6 marks)
- Absorption costing. (6 marks)

(b) Summarise four assumptions of cost-volume profit (CVP) analysis. (4 marks)

(c) Britkon Ltd. makes a single product branded "P" with a sales price of Sh.100 and a variable cost of Sh.60. Fixed costs are Sh.600,000 per annum.

**Required:**

(i) Assuming the taxation rate is 40%, determine the number of units to be sold to make a profit after tax of Sh.200,000 per annum. (2 marks)

(ii) As a result of increasing costs, the variable cost is expected to rise to Sh.65 per unit and fixed costs to Sh.700,000 per annum.

Assuming the selling price cannot be increased, determine the number of units required to maintain a profit of Sh.200,000 per annum.

(Ignore inflation).

(2 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

(a) Outline six benefits that might accrue to an organisation as a result of preparing budgets. (6 marks)

(b) You are in charge of making forecasts and preparing budgets for Kondele Ltd. You have been supplied with the following cost and revenue forecast and details of payments:

**Forecast for revenue and costs for half year 2022**

	January Sh."000"	February Sh."000"	March Sh."000"	April Sh."000"	May Sh."000"	June Sh."000"
Direct material purchases	112,000	100,000	135,000	90,000	67,000	79,000
Wages	90,000	80,000	100,000	72,000	54,000	63,000
<b>Overheads</b>						
Production	34,000	32,000	40,000	45,000	36,000	40,000
Administrative	22,000	20,000	27,000	24,000	25,000	27,000
Selling and distribution	13,000	11,000	18,000	13,000	11,000	16,000
Sales	360,000	350,000	440,000	350,000	360,000	360,000

**Additional information:**

1. Cash balance on 1 April 2022 is expected to be Sh.90 million.
2. Period of credit allowed by suppliers averages two months.
3. Debentures worth Sh.125 million are expected to be issued in May 2022 and the amount will be received in the same month.
4. A new machine will be installed in March 2022 at a cost of Sh.150 million and payment is expected in May 2022.
5. Sales commission of 3% is payable after one month of sale.
6. A dividend of Sh.100 million is to be paid in June 2022.
7. There is a delay of one month in the payment of overheads and wages.
8. Twenty percent of the debtors pay cash, receiving a cash discount of 4% and seventy per cent of debtors pay within one month and receive 2.5% discount while the remaining debtors pay within two months without a discount.

**Required:**

A cash budget on a monthly basis for the months of April 2022 to June 2022.

(14 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

(a) Describe four factors that could influence a company's demand for management accounting information. (8 marks)

(b) Highlight four purposes of standard costing. (4 marks)

(c) Describe two advantages and two disadvantages of using activity based costing (ABC). (4 marks)

(d) Explain the following terms:

(i) Relevant cost. (2 marks)

(ii) Sunk cost. (2 marks)

**(Total: 20 marks)**



**CPA INTERMEDIATE LEVEL**  
**PILOT PAPER**  
**MANAGEMENT ACCOUNTING**

**December 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) Distinguish between a cost centre and a cost unit. (4 marks)
- (b) Explain the salient features of Economic Order Quantity approach. (4 marks)
- (c) Sanitize Company Ltd. manufactures a product from raw materials which are purchased at Sh.54 per kg. The company incurs a handling cost of Sh.350 and transport cost of Sh.400 per order.

The carrying cost is Sh.0.50 per kg per month. The investment cost in the raw material is Sh.8. per kg. The annual production of the product is 94,500 units and each kilogramme of raw materials produces two (2) units of the final product.

**Required:**

- (i) Calculate the economic order quantity. (5 marks)
- (ii) Advise how frequently orders should be placed for procurement. (3 marks)
- (iii) If the procurement manager proposes to order on quarterly basis, what discount should be negotiated if the company is not willing to incur extra costs. (4 marks)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) Explain the following terms:
- (i) Material variances. (3 marks)
- (ii) Labour variances. (3 marks)
- (iii) Standard costing. (2 marks)
- (b) To produce a litre of a product, 24 units of materials are required at a standard price of Sh.75 per litre. The actual production for the period is 75,000 units. Records proved that 80,000 units of materials were used at a price of Sh.73 per unit.

**Required:**

Calculate:

- (i) Material cost variance. (4 marks)
- (ii) Material price variance. (4 marks)
- (iii) Material usage variance. (4 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) Countries have development blue prints while other organisations have strategic plans.

Citing challenges in achieving the objectives, explain why it is important for every organisation to have a long-term plan. (6 marks)

- (b) Kasap Ltd. manufactures plastic bottles by mixing materials. The following information was obtained from their management accountant during the month of October 2021:

1. Materials used were 12,000 kg at Sh.13 per kg.
2. 12 employees worked 120 hours each at a rate of Sh.25 per hour.
3. Fixed overheads were absorbed at a rate of 100% of direct labour cost.
4. Actual output was 10,000 units.
5. There was no opening or closing work in progress.
6. The company expects a normal 10% of materials input. There is no waste or scrap in the process.

**Required:**

- (i) Calculate the expected cost per unit. (4 marks)
  - (ii) Process account. (3 marks)
  - (iii) If the normal loss is sold at Sh.10.00/kg what would be the revised cost of produced units. (3 marks)
- (c) Explain the various risks associated with stock and inventory management in manufacturing during the COVID-19 pandemic. (6 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) Explain the advantages of linear regression analysis in cost estimation. (4 marks)
- (b) Kalu Ltd. produces masks for sale. The following information was provided for the last 8 months in masks production:

Month	No. of masks (000)	Total cost (Sh."000")
1	5	50
2	6	53
3	6.5	55
4	6.7	59
5	7	62
6	7.5	64
7	8	66
8	9	72

**Required:**

Formulate the cost estimation for the cost of producing 10,000 masks using:

- (i) High low method. (3 marks)
  - (ii) Simple linear regression method. (3 marks)
- (c) Highlight features of process costing. (2 marks)
- (d) Bibi Ltd. produces food which passes through two processes A and B then to finished products.

Normal loss is estimated at 590 for each process and 10% scrap which realises Sh.80.00 for process A and Sh.200.00 for process B per unit.

The following information is obtained

	A	B
Materials (units)	1,000	70
Cost of materials per unit (Sh.)	125	200
Wages (Sh.)	28,000	10,000
Other direct expenses (Sh.)	8,000	5,250
Output in units	830	780

**Required:**

Process accounts for the two processes assuming there was no stock or work in progress in the two processes. (8 marks)



**QUESTION FIVE**

- (a) Short Ltd. maintains separate cost and financial ledgers. The accountant has provided the following information from the trial balance.

**Cost ledger opening trial balance:**

	Sh.	Sh.
Financial ledger control account		250,000
Work in progress control account	120,000	
Finished goods control account	110,000	
Stores ledger control account	<u>20,000</u>	
	<u>250,000</u>	<u>250,000</u>

**Additional information:**

1. Total sales during the period amounted to Sh.430,000.
2. Total purchases and other handling costs amounted to Sh.280,000.
3. The work in progress and stores ledger had the same values at the closing of the period.
4. The closing financial ledger balance was Sh.245,000.

**Required:**

- (i) Profit for the period. (5 marks)
- (ii) Closing trial balance for the period. (5 marks)
- (b) The management of Kalu Ltd. has produced the following projections for the year 2022:

	Sh.
Selling price per unit	200
Variable cost per unit	120
Fixed costs	4,000,000
Number of units produced and sold	70,000

**Additional information:**

The management is considering the following options:

1. Reducing selling price by 10% to increase sales by 15%.
2. Reducing selling price by 20% to increase sales by 20%.

**Required:**

- (i) Worksheet showing effects of each consideration. (2 marks)
- (ii) The best option from the analysis. (8 marks)

**(Total: 20 marks)**

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**CPA INTERMEDIATE LEVEL**  
**MANAGEMENT ACCOUNTING**

**THURSDAY: 4 August 2022. Morning paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings. Do NOT write anything on this paper.**

**QUESTION ONE**

(a) Explain the following terms as used in inventory management system:

- (i) Perpetual inventory system. (2 marks)
- (ii) Periodic inventory system. (2 marks)

(b) The following information relates to store receipts and issue of material R in a small manufacturing enterprise for the month of April 2022:

April:	1	Opening inventory 4,000 units at Sh100 per unit.
	4	Issued 3,000 units.
	5	Purchased 9,000 units at Sh.120 per unit.
	9	Issued 3,200 units.
	12	Returned to stores 2,000 units (from the issue of 4 April 2022).
	15	Purchased 4,800 units at Sh.130 per unit.
	18	Returned to supplier 400 units out of the quantity received on 5 April 2022.
	25	Purchased 2,000 units at Sh.140 each.
	28	Issued 4,200 units.
	29	Purchased 2,400 units at Sh.150 per unit.
	30	Issued 5,600 units.

It is the company's policy to use the weighted average method when valuing the materials issued.

**Required:**

Store ledger account for the month of April 2022. (10 marks)

(c) Turkwes Ltd. manufactures men suits for local market. Jobs are allocated to two operators; Njogu and Mabili with bonus paid for hours saved.

In the month of July 2022, Njogu made 100 units while Mabili made 105 units for which the time allowed of 60 standard minutes and 50 standard minutes per unit respectively was credited.

**Additional information:**

- The basic wage rate was Sh.360 per hour for both employees.
- For every hour saved, a bonus was paid at the rate of 25% of the basic wage rate.
- Hours worked in excess were paid at the basic wage rate plus two thirds.
- Njogu completed his job in 88 hours while Mabili completed his job in 78 hours.
- A basic working week has 80 hours.

**Required:**

For each operator, determine:

- (i) Amount of bonus payable. (2 marks)
- (ii) Total gross wage payable. (2 marks)
- (iii) Wage cost per unit. (2 marks)

**(Total: 20 marks)**

## QUESTION TWO

- (a) Distinguish between “flexible budget” and “activity based costing” as used in management accounting. (4 marks)
- (b) Betacare Enterprise produces several products which pass through two production departments in its factory. These two departments are concerned with filling and sealing operations. There are two service departments; canteen and boiler house in the factory.

### Additional information:

- Predetermined overhead absorptions rate, based on direct labour hours are established for the two production departments.
- The budgeted expenditure for these two departments for the period just ended, including the appointments of service department overheads was as follows:
  - Filling centre Sh.110,040
  - Sealing centre Sh.53,300
- Budgeted direct labour hours were 13,100 hours for filling cost centre and 10,250 hours for sealing cost centre.
- Service department overheads are apportioned as follows:

		Canteen	Boiler house
		%	%
<b>Production department:</b>	Filling centre	40	50
	Sealing centre	50	30
		Canteen	Boiler house
		%	%
<b>Service department:</b>	Canteen	-	20
	Boiler house	<u>10</u>	<u>-</u>
Total		<u>100</u>	<u>100</u>

5. During the period just ended, actual overhead costs and activity were as follows:

	Sh.	Direct labour hours
Filling centre	74,260	12,820
Sealing centre	38,115	10,075
Canteen	25,050	
Boiler House	24,375	

### Required:

Reapportion and calculate the overheads absorption rates in each production cost centre using:

- Stepwise technique. (7 marks)
- Simultaneous technique. (7 marks)
- Compute over or under absorption of overheads under (b) (ii) above for filling and sealing production departments. (2 marks)

**(Total: 20 marks)**

## QUESTION THREE

- (a) Discuss six benefits that would accrue to a firm that uses break-even charts in making managerial decisions in its operations. (6 marks)
- (b) NIE Social Academy conducts an entrance test for every new student whereby a final selection of 100 students is made. The entrance test consists of four key areas and is spread over four days, one examination per day. Being a community based institution, each student is charged a fee of Sh.500 for taking up the test. The following data relates to the two months in the previous holiday:

### Statement of net revenue from the entrance tests

	April Sh.	May Sh.
Gross revenue (fees collected)	100,000	150,000
<b>Costs:</b>		
Evaluation	40,000	60,000
Question booklets	20,000	30,000
Hire of hall at Sh.2,000 per day	8,000	8,000
Honoraria to chief invigilator	6,000	6,000
Supervision charges (on supervision of every 100 candidates at the rate of Sh.500 per day)	4,000	6,000
General administrative expenses	<u>6,000</u>	<u>6,000</u>
Total cost	<u>84,000</u>	<u>116,000</u>
Net Revenue	<u>16,000</u>	<u>34,000</u>

**Required:**

- (i) Budgeted net revenue for 4,000 students. (8 marks)
- (ii) Break-even number of candidates. (4 marks)
- (iii) Number of candidates to be enrolled if the net income desired is Sh.200,000 in the following month. (2 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- (a) (i) Explain the term “industrial engineering technique” as used in cost estimation. (2 marks)
- (ii) Highlight three advantages of the industrial engineering technique. (3 marks)
- (b) Zigzag Line Coaches Ltd. operates a fleet of executive coaches across the country.

The following information is provided:

	30 seater coaches	50 seater coaches
Number of coaches	5	10
Number of drivers	5	10
Weekly wage cost per driver	Sh.12,000	Sh.12,500
Cost of each coach	Sh.6,000,000	Sh.9,200,000
Fuel consumption-kilometres per litre	12.5	8.0
Annual licence per coach	Sh.35,000	Sh.50,000
Annual insurance per coach	Sh.34,000	Sh.40,000

**Additional information:**

- Annual repairs and maintenance were budgeted at Sh.6,500,000 and are to be apportioned between the coaches in the ratio of their total mileage in kilometres covered.
- Administrative expenses are budgeted at Sh.9,620,000 annually and are to be apportioned to each coach in the ratio of driver's wage costs.
- Each 30 seater coach is kept for 6 years at which it will have a resale value of Sh.2,400,000 while every 50 seater coach will be replaced after 7 years and have a resale value of Sh.2,900,000.
- It is the policy of the company to depreciate the coaches on a straight line basis. Depreciation expense is charged annually.
- It is envisaged that each 30 seater coach will travel 1,000 kilometres per week and each 50 seater coach will travel 800 kilometres per week.
- The cost of the fuel is budgeted at Sh.120 per litre.
- It is budgeted that each coach will be in operation for 50 weeks per year and the drivers will be paid for 52 weeks.

**Required:**

Cost per kilometer per passenger for:

- (i) 30 seater coach. (8 marks)
- (ii) 50 seater coach. (7 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- (a) Describe four uses of management accounting information to a business entity. (8 marks)
- (b) The following information relates to actual output costs and variances for the month of May 2022 for a single product branded “T” manufactured by KK Ltd.:

Actual production	36,000 units
<b>Actual cost incurred:</b>	<b>Sh.</b>
Direct material (300,000 kgs)	8,400,000
Direct labour (64,000 hours)	5,440,000
Variable production overheads	1,520,000
<b>Variances</b>	
Direct materials price	300,000 (Favourable)
Direct materials usage	180,000 (Adverse)
Direct labour rate	160,000 (Adverse)
Direct labour efficiency	320,000 (Favourable)
Variable production overhead expenditure	120,000 (Adverse)
Variable production overhead efficiency	80,000 (Favourable)

**Additional information:**

1. There was no opening or closing work-in-progress during the period.
2. Variable production overhead varies with labour hours worked.
3. The company operates the standard marginal costing system.

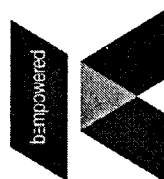
**Required:**

Standard cost card for product “T” for the month of May 2022.

(12 marks)

**(Total: 20 marks)**

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CPA PART I SECTION 2

MANAGEMENT ACCOUNTING

WEDNESDAY: 19 May 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) Explain the following terms as used in management accounting:

- (i) Opportunity cost. (1 mark)
- (ii) Notional cost. (1 mark)
- (iii) Discretionary cost. (1 mark)
- (iv) Incremental cost. (1 mark)

(b) Kedren Ltd. manufactures a single product. During the period from January 2021 to March 2021, the following data was recorded:

Month	Output (Units)	Cost (Sh.)
January	8,240	167,590
February	8,750	173,260
March	8,100	165,772

Required:

- (i) Using the high-low method, derive a predictor equation in the form of  $Y = a + bx$  for the company. (4 marks)
- (ii) Determine the total cost that would be incurred to produce 8,500 units of the product. (2 marks)

(c) Lengo Ltd. manufactures three products namely; A, B and C

The following data relates to the three products:

	Product		
	A	B	C
	Sh.	Sh.	Sh.
Selling price per unit	250	320	460
<b>Production cost per unit:</b>			
Variable overheads	16	20	28
Installation labour	24	32	44
Manufacturing labour	40	55	70
Raw materials	70	110	155

Additional information:

- Highly skilled labour is required for installation of the three products in the customer's premises. A maximum of 25,000 hours of highly skilled labour are currently available at Sh.8 per hour during the production period.
- Fixed costs for the production period are Sh.450,000.
- The maximum demand for Products A, B and C is 2,000 units, 3,000 units and 1,800 units respectively.

**Required:**

- (i) The current shortfall in highly skilled labour at maximum demand. (4 marks)
- (ii) The optimal production mix. (4 marks)
- (iii) The resultant profit at the optimal production mix. (2 marks)

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

- (a) Mzalendo Ltd. operates a differential piece rate remuneration scheme for its casual labourers.

The following schedule is applied to determine employees' remuneration:

Number of units	Wage rate per unit
	Sh.
1 - 250	500
251 - 500	550
501 - 1,000	600
Over 1,000	650

Rhoda Bidii completed 1,650 units during the month of January 2021.

**Required:**

Determine the wages payable to Rhoda Bidii for the month of January 2021. (5 marks)

- (b) ZigZag Ltd. prepared the following budget for the first five months of the year 2020:

Month	Sales budget (Units)
January	10,800
February	15,600
March	12,200
April	10,400
May	9,800

**Additional information:**

- Inventory of finished goods at the end of every month is to be equal to 25% of sales estimate for the next month.
- On 1 January 2020, there were 2,700 units of the product on hand.
- There is no work-in-progress at the end of any month.
- The selling price per unit was estimated to be Sh.450 per unit.
- Each unit of the product requires two types of materials in the following quantities:  
Material A: 4 Kgs.  
Material B: 5 Kgs.
- The closing stock of materials is equal to half of the requirements of the next month's production.

**Required:**

For the months of February, March and April 2020, prepare:

- (i) Sales budget. (3 marks)
- (ii) Production budget. (6 marks)
- (iii) Materials usage budget in units. (6 marks)

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

- (a) Describe the three main stages of the Activity Based Costing (ABC) system. (6 marks)
- (b) Bix Ltd. re-apportions the costs incurred in two service cost centres namely; materials handling and inspection to the three production cost centres of machining, finishing and assembly.

The following are the overhead costs which have been allocated and apportioned to the five cost centres:

	Sh. "Million"
Machining	400
Finishing	200
Assembly	100
Materials handling	100
Inspection	50

Estimates of the benefits received by each cost centre are as follows:

	Machining (%)	Finishing (%)	Assembly (%)	Materials Handling (%)	Inspection (%)
Materials Handling	30	25	35	-	10
Inspection	20	30	45	5	-

**Required:**

Calculate the charge for overhead to each of the three production cost centres, including the amounts reapportioned from the two service centres using:

(i) The continuous allotment (repeated distribution) method. (7 marks)

(ii) The algebraic method. (7 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

The following information is available for Process II of Winam Fabrications Ltd. for the month of September 2020:

Opening stock: 4,800 units valued at Sh.165,000

Degree of completion: Materials 70%  
Labour 60%  
Overheads 60%

**Additional information:**

1. Transfer from Process I amounted to 30,600 units valued at Sh.306,000.

2. Additional costs incurred in Process II include:

	Sh.
Direct materials	134,400
Direct labour	394,200
Production overheads	525,600

3. The units scrapped amounted to 2,400 units with the following degree of completion:

Materials	100%
Labour	70%
Overheads	70%

4. The closing stock was 5,400 units with the following degree of completion:

Materials	60%
Labour	40%
Overheads	40%

5. Transfer to Process III amounted to 27,600 units.

6. There was a normal loss of 10% of production in the process.

7. The units scrapped were realised at Sh.10 per unit.

**Required:**

(a) Statement of equivalent production. (8 marks)

(b) Cost of equivalent unit for each element of cost. (6 marks)

(c) Process II account using the First-in-First Out (FIFO) method. (6 marks)

**(Total: 20 marks)**



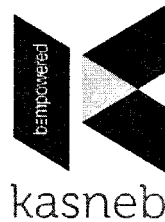
### QUESTION FIVE

- (a) Jeremy Awuor established a fast food business one year ago and has achieved good sales but a small profit. In a recent business networking event, he was advised to consider employing a management accountant to enhance and improve his business.

**Required:**

- (i) Explain to Jeremy Awuor six changes in the business environment that could have contributed to the growth and importance of management accounting in the recent past. (6 marks)
- (ii) Describe four roles played by a management accountant that would enhance and improve Jeremy Awuor's business. (4 marks)
- (b) Highlight four advantages of maintaining integrated accounting systems in cost bookkeeping. (4 marks)
- (c) Explain three advantages and three disadvantages of implementing a Just-in-Time (JIT) system in an organisation. (Total: 20 marks)

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

**WEDNESDAY: 28 November 2018.**

**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) "A budgetary control system could prove successful only when certain conditions and essentials exist".

With reference to the above statement, highlight six conditions and essentials for an effective budgetary system.

(6 marks)

- (b) Nduro Ltd. has two production departments; MM and NN and two service departments; PP and QQ. For the month of August 2018, the budgeted hours and costs were as follows:

Department	Hours	Cost (Sh.)
MM	1,800	45,000
NN	5,400	54,000

**Additional information:**

1. The service department costs are apportioned to the production departments as follows:

	Department			
	MM	NN	PP	QQ
PP	50%	20%	-	30%
QQ	40%	40%	20%	-

2. The overheads of the production departments are absorbed into product cost using a rate per hour.  
3. During the month of August 2018, the actual activity levels and costs were as follows:

Department	Hours	Costs (Sh.)
MM	1,980	43,200
NN	6,120	52,200
PP		10,800
QQ		7,200

**Required:**

- (i) The overheads to be charged to the production departments. (8 marks)

- (ii) The amount of under or over absorption in each production department. (6 marks)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) Explain four assumptions of break-even analysis. (8 marks)

- (b) Kuni Limited are distributors of two cooking gas cylinders; "Meko" and "13C". "Meko" weighs 6 kgs while "13C" weighs 13 kgs.

The following information relates to the company's projection for the year ending 30 June 2019:

Product "Meko"	Sh."000"
Sales (43,800 units)	49,056
Fixed costs	(9,811.2)
Variable costs	<u>(29,433.6)</u>
Operating profit	2,811.2

Product "13C"	
Sales (71,175 units)	142,350
Fixed costs	(79,716)
Variable costs	<u>(42,705)</u>
Operating profit	<u>19,929</u>

**Required:**

- Determine the break-even point of "meko" and "13C" in both units and shillings. (6 marks)
- Given that customers refill "meko" three times for every two times they refill "13C", compute the composite unit contribution margin. (4 marks)
- Determine the break-even sales in shillings assuming that "meko" and "13C" are normally purchased in the ratio of one to one. (2 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) Kiz Ltd. manufactures a single product branded "zuri" whose standard cost card is given below:

		Sh.
Selling price per unit		<u>100</u>
Direct materials	7 kilogrammes at Sh.2 per kilogramme	14
Direct labour	2 hours at Sh.8 per hour	16
Fixed overheads	2 hours at Sh.16 per hour	<u>32</u>
Total cost		<u>62</u>

**Additional information:**

1. As at 1 October 2018, the opening balances for the cost ledgers were as follows:

	Sh.
Direct materials	15,000
Work-in-progress	120,000
Finished goods	72,000

2. The following transactions took place during the month of October 2018:

	Sh.
Direct material purchases	89,000
Materials issued to production	90,000
Direct labour paid	102,000
Indirect labour paid	56,000
Production overhead cost incurred	159,000
Sales (6,500 units)	650,000
Goods transferred to finished goods stock	385,000

3. As at 31 October 2018, closing stock balances were as follows:

	Sh.
Direct materials	14,000
Work-in-progress	135,000
Finished goods	54,000

**Required:**

- (a) Direct materials control account. (3 marks)
- (b) Work-in-progress control account. (5 marks)
- (c) Finished goods control account. (4 marks)
- (d) Production overheads control account. (4 marks)
- (e) A statement showing profit or loss. (4 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- (a) Engtech Ltd. manufactures castings which are transferred to the machine shop of the same company at standard prices.

A standard costing system is applied. Basic standards in regard to materials stock are as follows:

1. Standard mixture      70% Ingredient Y  
                                    30% Ingredient X
2. Standard prices      Ingredient X Sh.480 per kg.  
                                    Ingredient Y Sh.130 per kg.
3. Opening and closing stock of ingredients X and Y for the month of October 2018 are as follows:
 

Opening stock	Ingredient X 100 kgs
	Ingredient Y 60 kgs
Closing stock	Ingredient X 110 kgs
	Ingredient Y 50 kgs
4. Total purchases for ingredients X and Y are as follows:
 

	Ingredient X 300 kgs at Sh.146,500
	Ingredient Y 100 kgs at Sh.12,500
5. The mixtures melted amounted to 400 kgs while castings produced were 375 kgs.
6. Standard loss is 10% of input.

**Required:**

- (i) Material price variances. (4 marks)
- (ii) Material mix variances. (4 marks)
- (iii) Material yield variances. (4 marks)
- (b) The following information was obtained from the books of Brickmast Ltd., a company making bricks for sale to contractors in the construction industry:
1. Materials : M    1,800 tonnes at Sh.40 per ton.  
                      N    Sh.45,640
  2. Labour :    Direct Sh.25,560  
                     Indirect Sh.8,640
  3. Overheads: Works 25% of direct costs  
                     Office 20% of prime cost and works overhead cost
  4. Sales Sh.7,400,000. Sales per brick amount to Sh.400.
  5. Royalties are paid at the rate of Sh.0.5 per 1,000 bricks.
  6. The production is in batches of 1,000 bricks.
  7. Stock of finished bricks:      Opening 800,000  
   Closing 600,000

**Required:**

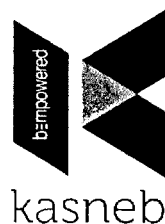
- (i) Batch cost statement. (6 marks)
  - (ii) Profit per 1,000 bricks. (2 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- (a) Evaluate four benefits that might accrue to an organisation from using computers in cost and management accounting. (4 marks)
- (b) Summarise four functions of a budget committee. (4 marks)
- (c)
  - (i) Explain the term “industrial engineering method” in relation to cost estimation. (3 marks)
  - (ii) Highlight three circumstances under which the use of industrial engineering method of cost estimation is appropriate. (3 marks)
- (d) Production overhead is also known as factory overhead or manufacturing overhead.  
With reference to the above statement, outline six examples of production overheads. (6 marks)

**(Total: 20 marks)**

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## CPA PART I SECTION 2

### MANAGEMENT ACCOUNTING

WEDNESDAY: 23 May 2018.

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) Describe four limitations of management accounting. (4 marks)
- (b) XYZ Ltd. manufactures a component branded “zed” at the rate of 4,000 units per week. Demand for the component is 2,000 units per week while the production set up cost is Sh.50 per batch. The accountant has provided the holding cost per unit per annum as Sh.0.001.

Assume a 50-week year.

#### Required:

- (i) Economic Batch Quantity (EBQ) for the company. (3 marks)
- (ii) Determine the relevant costs for the EBQ in (b) (i) above. (3 marks)
- (c) Louise Njambi has taken a lease on a stall from the county government at a down payment of Sh.50,000. The annual rental payment amounts to Sh.50,000. If the lease is cancelled, the initial payment of Sh.50,000 is forfeited. Louise plans to use the stall in selling women’s clothes and the estimated operation costs for the next 12 months are as follows:

	Sh.	Sh.
Sales		1,150,000
Value added tax (VAT)		(150,000)
Net sales		1,000,000
Cost of goods sold	500,000	
Wages and casual labour	120,000	
Rent including the down payment	100,000	
Rates, heating, lighting and insurance	130,000	
General expenses	20,000	(870,000)
Net profit		130,000

#### Additional information:

- No provision has been made for Louise Njambi’s salary but it is estimated that half of her time will be devoted to the business.
- She has an option of subletting the stall to a friend at a monthly rent of Sh.5,500 if she does not use the stall herself.

#### Required:

- (i) Explain using relevant examples from the situation depicted above; sunk costs and opportunity costs. (4 marks)
- (ii) Using a cost analysis statement, advise Louise Njambi on whether to use the stall herself or sublet it. (6 marks)
- (Total: 20 marks)

#### QUESTION TWO

- (a) Classification of cost based on function involves classifying costs on the basis of the purpose for which costs are incurred.

With reference to the above statement, explain three types of costs classified by function. (6 marks)

- (b) The administrator of Chebatok Hills Hospital would like to establish a cost formula linking the administrative costs involved in admitting patients to the number of patients admitted during the month. The admissions department's costs and the number of patients admitted during the last eight months for the year 2017 are given below:

Month	Number of patients admitted	Admission department's Cost "Sh."
May	1,800	14,700
June	1,900	15,200
July	1,700	13,700
August	1,600	14,000
September	1,500	14,300
October	1,300	13,100
November	1,100	12,800
December	1,500	14,600

**Required:**

- Using the high-low method, estimate the fixed and variable components of admission costs. (4 marks)
- Using the least squares method, estimate the relationship between number of patients admitted and the admission costs in the form of  $Y = a + bx$ . (8 marks)
- Using the relationship obtained in (b) (ii) above, estimate the admission costs incurred in January 2018 if admission was 2,000 patients. (2 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) Savanah Company is highly automated and uses computers to control manufacturing operations. The company uses job order costing system and applies manufacturing overhead costs to products on the basis of computer hours.

The following estimates were used in preparing predetermined overhead rates at the beginning of the financial year ended 31 March 2018.

Computer hours	85,000
Fixed manufacturing overhead costs	Sh.1,275,000
Variable manufacturing overhead per computer-hour	Sh.3.0

During the year, a severe economic recession resulted in cutting back production and a buildup of inventory in the company's warehouse. The company's cost records disclosed the following actual costs and operating data for the year ended 31 March 2018:

Computer hours	60,000
	<b>Sh.</b>
Manufacturing overhead costs	1,350,000
Cost of goods sold	2,800,000

**Inventories at the year-end:**

Raw materials	400,000
Work-in-progress	160,000
Finished goods	1,040,000

**Required:**

- Compute the company's predetermined overhead absorption rate for the year. (3 marks)
- Compute under-applied or over-applied overhead cost for the year. (4 marks)
- It is the policy of the company to allocate any under or over-applied overheads to cost of goods sold.

Determine the cost of goods sold to be charged to the income statement. (3 marks)

- (b) Better Designs Ltd. manufactures a single product using a single grade of labour. Its sales budget and finished goods inventory budget for the third quarter of the year 2018 are as follows:

	<b>Units</b>
Sales	7,000
Opening inventories finished goods	500
Closing inventories finished goods	700

**Additional information:**

1. The goods are inspected only when production work is completed and it is budgeted that 10% of finished work will be scrapped.
2. Standard direct labour hours per unit is 3.
3. The budgeted productivity ratio for the direct labour is only 80% (which means that labour is working at 80% efficiency).
4. The company employs 18 direct employees who are expected to average 1,440 working hours each for the quarter.

**Required:**

- (i) Production budget for the quarter. (4 marks)
- (ii) Direct labour budget. (4 marks)
- (iii) Calculate the shortfall in direct labour hours. (2 marks)

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

- (a) Summarise four advantages of value chain analysis in cost management. (8 marks)
- (b) Karibu Cottages Ltd. operates three types of suites for its customers namely: Standard, Deluxe and Luxury.

The following information is provided:

1. The number of suites of each type are:

Standard	100
Deluxe	30
Luxury	20

2. The rent of Deluxe suite is to be fixed as 1½ times the standard suite and that of Luxury as twice the standard suite.
3. The occupancy level for each suite is as follows:

	Peak season	Off peak season
Standard suites	90%	50%
Deluxe suites	80%	20%
Luxury suites	60%	20%

4. The expenses are as follows:

- Room attendant wages per day when occupied:

Suite	Peak season	Off peak season
	Sh.	Sh.
Standard	20	30
Deluxe	30	45
Luxury	40	60

- Lighting, heating and power for full month, when occupied is as follows:

Suite	Lighting (Sh.)	Power (Sh.)
Standard	400	200
Deluxe	600	300
Luxury	800	400

- Other costs (annual):

	Sh.
Staff salaries	2,200,000
Repairs and renovations	420,000
Linen and laundry	450,000
Interior decorations	500,000
Sundries	315,500

- Annual depreciation is charged on a straight line basis as follows:

Asset	Cost of asset (Sh.)	Rate per annum (%)
Building	14,000,000	5
Furniture and fixtures	1,000,000	10
Air conditioners	2,000,000	10



5. Peak season is assumed to be 7 months and off-peak season 5 months in a year. One month is taken to have 30 days.
6. Profit including interest on investment is 25% on cost.

**Required:**

Advise on the amount of rent to be charged for each type of suite per day.

(12 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) Distinguish between "interlocking accounting systems" and "integrated accounting systems" as used in cost bookkeeping. (4 marks)
- (b) Highlight two advantages of marginal costing. (4 marks)
- (c) The standard cost card for production of a component "Wye" is as follows:

Materials	1 kg at Sh.4 per kg per unit
Labour	25 hours (100 units) at Sh.8 per hour
Variable overheads	Sh.48,000 for budget period
Fixed overheads	Sh.120,000 for budget period
Output	24,000 units

Details for a production of 2,000 units are as follows:

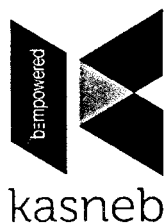
Materials issued	2,000 kgs at Sh.3.50 per kg
Actual production	1,800 units
Actual wages	480 hours at Sh.8.50 per hour
Actual variable overheads	Sh.4,000
Actual fixed overheads	Sh.10,600

**Required:**

- (i) Materials usage variance. (3 marks)
- (ii) Labour rate variance. (3 marks)
- (iii) Variable overheads efficiency variance. (3 marks)
- (iv) Fixed overheads volume variance. (3 marks)

**(Total: 20 marks)**

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

**WEDNESDAY: 29 November 2017.**

**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) Explain four purposes of cost accounting. (8 marks)
- (b) Mazuri Ltd., a manufacturing company, has three production departments and two service departments. Overheads for the departments for a specific period were as follows:

	Sh. "000"
<b>Production departments</b>	
X	2,500
Y	2,000
Z	1,500
<b>Service departments</b>	
A	1,000
B	<u>780</u>
<b>Total</b>	<u><u>7,780</u></u>

**Additional information:**

1. A technical assessment for the apportionment of the service department costs were as follows:

Department	X	Y	Z	A	B
A	30%	30%	20%	-	20%
B	40%	30%	20%	10%	-

2. Output for the production departments during the period are provided below:

Department	Units of outputs
X	200,000
Y	100,000
Z	50,000

**Required:**

The total overheads chargeable to the production departments using:

- (i) Continuous allotment method. (6 marks)
- (ii) Simultaneous equation method. (4 marks)
- (iii) Overhead cost per unit for each department. (2 marks)

**(Total: 20 marks)**

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**Out of 4**

## QUESTION TWO

- (a) XYZ Ltd. manufactures a product branded "Zed". The company has a production capacity of 1,000 units of Zed per day.

The following information relates to one unit of the product:

	Sh.
Materials	120
Labour	40
Variable overheads	40
Fixed overheads	100
Selling price	400

### Required:

- (i) Calculate the Break-Even-Point (BEP) of sales at the current selling price for 1,000 units. (3 marks)
- (ii) The marketing manager intends to reduce the selling price by either 10% or 20% for the 1,000 units without affecting the total profit.

Advise the marketing manager on the required sales volumes under the two options. (8 marks)

- (b) BRK Ltd. orders a raw material graded "Exe" for its manufacturing purpose. The following information is available from the production manager:

Annual consumption of Exe (units)	200,000
Ordering cost per order (Sh.)	18,750
Carrying cost per unit (Sh.)	3

### Required:

- (i) The Economic Order Quantity (EOQ) for material "Exe". (2 marks)
- (ii) The number of orders to be placed per year. (1 mark)
- (iii) The production manager has proposed to increase the current Economic Order Quantity (EOQ) to 100,000 units. Justify how this would increase the total cost of inventory thus not profitable. (6 marks)

(Total: 20 marks)

## QUESTION THREE

- (a) Mitambani Manufacturers Ltd. are in the initial process of adopting a Just-in-Time (JIT) inventory control system:

### Required:

- (i) Highlight four objectives of a JIT inventory control system. (4 marks)
- (ii) Describe four benefits that would accrue to the company from using JIT inventory control system. (4 marks)
- (b) Summarise three limitations of accounts analysis as a method of cost estimation. (3 marks)
- (c) Jundi Ltd. maintains separate cost and financial ledgers. The Accountant has provided the following opening trial balance in the cost ledger:

Cost ledger opening trial balance		
	Sh.	Sh.
Financial ledger control account		249,520
Work-In-Progress (WIP) control account	125,210	
Finished goods control account	85,150	
Stores ledger control account	39,160	
	<u>249,520</u>	<u>249,520</u>

### Additional information:

- During the period, total sales amounted to Sh.375,290.
- Total purchases, wages and overheads amounted to Sh.292,860.
- At the end of the period, the stores ledger and Work-In-Progress (WIP) control accounts had the same values as in the opening trial balance above.
- The closing balance on the financial ledger control account was Sh.212,420.

**Required:**

- (i) The profit for the period. (5 marks)
- (ii) Closing trial balance for the period. (4 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- (a) In the context of management accounting, distinguish between “discrete costs” and “imputed costs”. (4 marks)
- (b) The following information was extracted from the financial statements of ABC Ltd. and XYZ Ltd. in respect of the year ended 31 December 2016:

**Income statement extracts:**

	ABC Ltd. Sh. “000”	XYZ Ltd. Sh. “000”
Sales	497,000	371,000
Cost of sales	(357,840)	(296,800)
Gross profit	139,160	74,200
Operating expenses	(70,460)	(44,520)
Interest	(19,000)	-
Net profit	<u>49,700</u>	<u>29,680</u>

**Statement of financial position extracts:**

	ABC Ltd. Sh. “000”	XYZ Ltd. Sh. “000”
Non-current assets	142,000	92,000
<b>Current assets:</b>		
Inventory	100,000	87,000
Accounts receivable	46,000	42,000
Cash at bank	40,000	44,000
Current liabilities	98,000	108,000
Long-term loans	33,000	-
Shareholder funds	197,000	157,000

**Required:**

Assuming a 365 day year, evaluate the performance of the two firms using the following financial performance measures:

- (i) Profitability. (4 marks)
- (ii) Liquidity. (4 marks)
- (iii) Activity. (4 marks)
- (iv) Gearing. (4 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- (a) Megspa Ltd. manufactures a single product branded “Wye”.

The following data relates to its operations for the month of October 2017:

	Budget Units	Actual Units
Sales	60,000	58,000
Production	60,000	60,000
	Sh.	Sh.
Sales	840,000	823,600
Direct materials	240,000	246,000
Direct labour	300,000	288,000
Fixed overheads	135,000	140,000
Net income	165,000	149,600

**Required:**

A flexed budget for the month of October 2017 for the actual sales of 58,000 units.

(6 marks)

- (b) Tegemeo Ltd. manufactures a product which yields three joint products namely; H, N and T. The joint products are then processed further in a common process which consists of two consecutive stages.

The data below relate to the month of August 2017:

	Process 1	Process 2
	Sh.	Sh.
Direct materials (30,000 units at Sh.20 per unit)	600,000	-
Conversion costs	765,000	2,262,000
Scrap value of normal loss per unit	5	20

**Additional information:**

- The output in Process 1 is transferred to Process 2 and amounted to 26,000 units.
- The output in Process 2 consists of three joint products as follows:

Product	H	N	T
Quantity (units)	10,000	7,000	6,000

- The normal loss for both Process 1 and Process 2 is 10%.
- The unit selling prices for H, N and T are Sh.180, Sh.200 and Sh.300 respectively.
- All joint products are sold as soon as they are produced.
- Sales value method of joint costs apportionment is used.

**Required:**

- Process 1 account. (4 marks)
- Process 2 account. (6 marks)
- Income statement for the joint products. (4 marks)

**(Total: 20 marks)**

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# KASNEB

## CPA PART I SECTION 2

### MANAGEMENT ACCOUNTING

WEDNESDAY: 24 May 2017.

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) Explain four challenges that could be encountered when installing a cost accounting system. (4 marks)
- (b) Evaluate three benefits of the balanced scorecard. (6 marks)
- (c) Baraka Ltd. manufactures a single product which is meant for the local market only. The monthly demand for the product varies from one month to the other.

During the month of April 2017, 500 units were produced incurring the following expenses:

	Sh.
Direct materials	70,000
Direct labour	60,000
Rent (Fixed)	35,000
Electricity (30% Fixed)	25,000
Property taxes and rates (70% variable)	60,000
Technical support (Fixed)	<u>35,000</u>
	<u>285,000</u>

#### Required:

- (i) Using the account analysis method, formulate a predictor equation in the form of  $Y = a + bx$ . (8 marks)
- (ii) Baraka Ltd. intends to produce 700 units during the month of June 2017. Estimate the costs to be incurred. (2 marks)

(Total: 20 marks)

#### QUESTION TWO

The following financial data relate to Chestar Manufacturing Ltd. for the year ended 31 March 2017:

	Sh.
<b>Opening Stock:</b>	
Finished goods (875 units)	74,375
Work-in-progress	32,000
Direct labour	450,000
Raw materials consumed	780,000
Factory overheads	300,000
Goodwill	100,000
<b>Closing stock:</b>	
Finished goods (375 units)	41,250
Work-in-progress	38,667
Sales (14,500 units)	2,080,000
Rent received from godowns	18,000
Interest received (net)	45,000
Selling and distribution overheads	61,000
Bad debts	12,000
Dividends paid	85,000
Administration overheads	295,000

#### Additional information:

- Factory overheads are absorbed at 60% of direct wages.
- Administration overheads are recovered at 20% of factory cost.

3. Selling and distribution overheads are charged at Sh.4 per unit sold.
4. Opening stock of finished goods is valued at Sh.104 per unit.
5. The company values work-in-progress at factory cost for both financial and cost profit reporting.

**Required:**

- (a) Statements of income for the year ended 31 March 2017 showing profit as per financial records and as per costing records. (12 marks)

- (b) A statement reconciling the profit as per costing records with the profit as per financial records. (8 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) Outline four causes of material usage variances. (4 marks)

- (b) ABC Ltd. plans to use activity-based costing to determine its product costs. Currently, it uses a single plantwide factory overhead rate for allocating factory overheads to products, based on direct labour hours.

The total factory overhead cost is as follows:

Department	Factory overheads Sh.
Production support	1,225,000
Production (factory overheads only)	<u>175,000</u>
Total cost	<u>1,400,000</u>

The company has determined that it performs four major activities in the production support department.

These activities along with their budgeted costs are as follows:

Production support activities	Budgeted cost Sh.
Set-up	428,750
Production control	245,000
Quality control	183,750
Materials management	<u>367,500</u>
Total	<u>1,225,000</u>

ABC Ltd. has estimated the following activity-based usage quantities and units produced for each of its three products:

Product	Number of units	Direct Labour hours	Set-ups	Production orders	Inspections	Material requisitions
Product K	10,000	25,000	80	80	35	320
Product L	2,000	10,000	40	40	40	400
Product M	<u>50,000</u>	<u>140,000</u>	<u>5</u>	<u>5</u>	<u>0</u>	<u>30</u>
Total	<u>62,000</u>	<u>175,000</u>	<u>125</u>	<u>125</u>	<u>75</u>	<u>750</u>

**Required:**

Determine the factory overhead cost per unit for each product using:

- (i) Single plantwide factory overhead rate method. (4 marks)

- (ii) Activity-based costing. (8 marks)

- (iii) Giving reasons, advise the management of ABC Ltd. on the most accurate method of product costing. (4 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) A value chain is a set of activities that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market.

**Required:**

In line with the above statement, summarise the six stages of value chain of a manufacturing firm.

(6 marks)

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Out of 4**

- (b) Blacky Ltd. manufactures three products namely; A, B and C. The management is reviewing the profitability of the product line.

You are given the following budgeted data relating to the company for the coming year:

Product	A	B	C
Sales (units)	<u>100,000</u>	<u>120,000</u>	<u>80,000</u>
	Sh. "000"	Sh. "000"	Sh. "000"
Revenue	<u>1,500</u>	<u>1,440</u>	<u>880</u>
<b>Costs:</b>			
Material	500	480	240
Labour	400	320	160
Overhead	<u>650</u>	<u>600</u>	<u>360</u>
Total cost	<u>1,550</u>	<u>1,400</u>	<u>760</u>
Profit or (loss)	<u>(50)</u>	<u>40</u>	<u>120</u>

The management is concerned about the loss on Product A and it is considering ceasing its production and switching the spare capacity of 100,000 units to Product C.

**Additional information:**

- All units produced are sold.
- 25% of the labour cost for each product is fixed in nature.
- Fixed administration overheads of Sh.900,000 in total have been apportioned to each product on the basis of units sold and are included in the overheads above. All other overhead costs are variable in nature.
- Ceasing production of Product A would eliminate the fixed labour charge associated with it and one sixth ( $\frac{1}{6}$ ) of the fixed administration overheads apportioned to Product A.
- Increasing the production of Product C by 100,000 units would mean that the fixed labour cost associated with Product C would double, variable labour cost would rise by 20% and its selling price would decrease by Sh.1.50 in order to achieve the increased sales.

**Required:**

Advise the management of Blacky Ltd. on whether production of Product A should cease.

(14 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) Examine four purposes of cost classification. (4 marks)

- (b) Maramat Ltd. manufactures a single product branded "PQ".  
The budgeted sales for the month of June 2017 amount to 10,000 units at a selling price of Sh.2,000 per unit.

**Additional information:**

- One unit of "PQ" requires two components namely; X and Y as follows:

Component	Number	Unit cost of each component
		Sh.
X	5	20
Y	3	10

- Stocks at the beginning of the month are budgeted as follows:

- 4,000 units of finished goods at a unit cost of Sh.1,050
- Component X: 16,000 units at a unit cost of Sh.20
- Component Y: 9,600 units at a unit cost of Sh.10

- Production cost of each unit requires the following labour hours:

Department	Hours per unit	Labour rate per hour
		Sh.
Production	4	100
Finishing	2	140



4. Factory overhead is absorbed into unit cost on the basis of direct labour hours. The budgeted overhead for the month is Sh.1,920,000.
5. Administration, selling and distribution overheads for the month are budgeted at Sh.5,500,000.
6. The company plans a reduction of 50% in quantity of finished goods at the end of the month and an increase of 25% in the quantity of each input component.

**Required:**

For the month of June 2017:

- |       |                                   |                          |
|-------|-----------------------------------|--------------------------|
| (i)   | Sales budget.                     | (1 mark)                 |
| (ii)  | Production quantity budget.       | (2 marks)                |
| (iii) | Material usage budget.            | (2 marks)                |
| (iv)  | Material purchase budget.         | (3 marks)                |
| (v)   | Direct labour budget.             | (2 marks)                |
| (vi)  | Budgeted profit and loss account. | (6 marks)                |
|       |                                   | <b>(Total: 20 marks)</b> |
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# KASNEB

## CPA PART I SECTION 2

### MANAGEMENT ACCOUNTING

WEDNESDAY: 23 November 2016.

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) Describe six skills that a management accountant should possess. (6 marks)
- (b) Summarise four perspectives which the balanced scorecard focuses on. (4 marks)
- (c) The production manager of Tamuh Sugar Company is concerned about the apparent fluctuations in efficiency and work done by employees which are related to the volume. A twelve week research was undertaken and the following were the outcomes:

Week	Machine hours	Indirect labour cost Sh.
1	68	1,190
2	88	1,211
3	62	1,004
4	72	917
5	60	770
6	96	1,456
7	78	1,180
8	46	710
9	82	1,316
10	94	1,032
11	68	752
12	48	963

#### Required:

Using the ordinary least squares (OLS) method:

- (i) Formulate the cost function for the above relationship. (8 marks)
- (ii) Compute the indirect labour cost associated with 120 machine hours. (2 marks)
- (Total: 20 marks)

#### QUESTION TWO

- (a) In the context of a Just-In-Time (JIT) inventory system, explain the following terms:
- (i) Backflush costing. (2 marks)
- (ii) Batch sizes of one unit. (2 marks)
- (b) ALZ Ltd. operates a standard overhead absorption costing system. The standard fixed overhead rate per hour is Sh.25. The following data relate to the month of October 2016:
- |  |         |
|--|---------|
| Actual hours worked                      | 8,250   |
| Budgeted hours                           | 9,000   |
| Standard hours of actual production      | 7,800   |
| Actual fixed overheads expenditure (Sh.) | 211,000 |

#### Required:

For the month of October 2016, compute:

- (i) The fixed overheads volume variance. (2 marks)
- (ii) The fixed overheads expenditure variance. (2 marks)

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- (c) Exam-Companion Academy (ECA) offers expert training to candidates on four subjects. The budget for the financial year ending 30 June 2017 is as follows:

	Subject area			
	Accounting	Taxation	Auditing	Economics
Expected training hours	2,500	3,000	3,500	1,000
Charge per hour (Sh.)	400	500	450	350
Variable cost per hour (Sh.)	100	150	90	100

The fixed costs for the year are expected to be Sh.1,986,000.

**Required:**

- Assuming the above mix of training hours, advise the management on total number of hours required to break-even. (5 marks)
  - The contribution from each subject and in total at break-even. (4 marks)
  - Total hours required to earn a profit of Sh.1.324,000. (3 marks)
- (Total: 20 marks)**

**QUESTION THREE**

- Outline four causes of labour turnover in an organisation. (4 marks)
- Describe four functions of a budget committee. (4 marks)
- Rabuor Ltd. manufactures a range of products. The company absorbs production overheads using a rate of 200% of the direct wages. This rate was calculated from the following budgeted figures:

	Sh. "000"
Variable production cost	6,400
Fixed production costs	9,600
Direct labour cost	8,000

The management is faced with the following decision making problems:

**Problem 1**

The normal selling price per unit of product EXEM is Sh.220 while the unit production cost is as follows:

	Sh.
Raw materials	80
Direct labour	40
Production overheads	<u>80</u>
	<u>200</u>

There is a possibility of supplying a special order for 2,000 units of product EXEM at Sh.160 each. If the order is accepted, the normal budgeted sales would not be affected and the company has the necessary capacity to produce the additional units.

**Problem 2**

The cost of making component BEE, which forms part of product WYE is given below:

	Sh.
Raw materials	40
Direct labour	80
Production overheads	<u>160</u>
	<u>280</u>

Component BEE could be bought from an outside supplier for Sh.200.

Fixed production costs will not be affected.

**Required:**

- Advise the management on whether to accept the special order under Problem 1. (6 marks)
- Evaluate whether the company should continue to make component BEE or buy it from an outside supplier under Problem 2. (6 marks)

**(Total: 20 marks)**

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Out of 4

#### QUESTION FOUR

Pwani Ltd. operates a chemical process which produces four different products namely; A, B, C and D from the input of one raw material. Budget information for the forthcoming financial year is as follows:

Sh."000"			
Raw materials cost		268	
Initial processing cost		464	
Product	Output in litres	Sales Sh."000"	Additional processing costs Sh."000"
A	400,000	768	160
B	90,000	232	128
C	5,000	32	-
D	9,000	240	8

#### Additional information:

1. The company's policy is to apportion the costs prior to the split-off point on a method based on net sales value.
2. The current intention is to sell product C without further processing but to process the other three products after the split-off.
3. The alternative strategy would be to sell all the four products at the split-off point without further processing. If this was to be done, the selling prices obtainable would be as follows:

Product	Price per litre (Sh.)
A	1.28
B	1.60
C	6.40
D	20.00

#### Required:

- (a) Budgeted profit statement showing the profit or loss for each product and in total if the current intention is adopted. (10 marks)
  - (b) Determine the profit or loss by product and in total if the alternative strategy was to be adopted. (6 marks)
  - (c) Recommend what should be done and why assuming there is no more profitable alternative use for the plant. (4 marks)
- (Total: 20 marks)**

#### QUESTION FIVE

The following information has been extracted from the books of Wazi Enterprises Ltd., a company dealing with manufacture of plastic containers.

The sales budget for the first six months of the financial year ending 31 December 2016 was as follows:

Month	January	February	March	April	May	June
Sales (units)	10,000	12,000	14,000	15,000	15,000	16,000

#### Additional information:

1. Finished goods inventory at the end of each month is expected to be 20% of budgeted sales quantity for the following month.
2. Finished goods inventory was 2,700 units on 1 January 2016.
3. There would be no work in progress at the end of any month.
4. Each unit of finished product requires two types of raw materials as follows:  
Material X : 4 kgs at Sh.10 per kg  
Material Y: 6 kgs at Sh.15 per kg
5. Materials on hand on 1 January 2016 was 19,000 kgs of material X and 29,000 kgs of material Y.
6. Monthly closing stock of material is budgeted to be equal to half of the requirements of next month's production.
7. Budgeted direct labour hour per unit of finished product is  $\frac{3}{4}$  hour.
8. Budgeted direct labour cost for the first quarter of the year 2016 is Sh.1,089,000.

9. Actual data for the quarter ended 31 March 2016 is as follows:  
Actual production quantity: 40,000 units  
Direct material cost (Purchase cost based on materials actually issued to production)  
Material X: 165,000 kgs at Sh.10.20 per kg  
Material Y: 238,000 kgs at Sh.15.10 per kg  
Actual direct labour hours worked: 32,000 hours  
Actual direct labour cost: Sh.1,312,000

**Required:**

- (a) (i) Monthly production quantity for the quarter ended 31 March 2016. (4 marks)
- (ii) Monthly raw material consumption quantity budget for the four months from January 2016 to April 2016. (4 marks)
- (iii) Materials purchase quantity budget for the quarter ended 31 March 2016. (4 marks)
- (b) Compute the following variances:
- (i) Material price variance. (2 marks)
- (ii) Material usage variance. (2 marks)
- (iii) Direct labour rate variance. (2 marks)
- (iv) Direct labour efficiency variance. (2 marks)
- (Total: 20 marks)**
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# KASNEB

## CPA PART I SECTION 2

### MANAGEMENT ACCOUNTING

WEDNESDAY: 25 May 2016.

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) The following information has been made available from the records of Keni Automotives Ltd., a company dealing with the manufacture of spare parts:

Direct materials	Price per unit
	Sh.
X	800
Y	600
Direct wages	
X	12 hours at Sh.50 per hour
Y	8 hours at Sh.45 per hour
Variable overheads	150% of direct wages
Fixed overheads	Sh.750,000
Selling price	Sh.
X	2,500
Y	2,000

The directors of the company have sought your advice on the following alternative sales mix in the budget for the next period:

- I. 2,500 units of X and 2,500 units of Y.
- II. 4,000 units of Y only.
- III. 4,000 units of X and 1,000 units of Y.
- IV. 1,500 units of X and 4,000 units of Y.

#### Required:

Advise the management of the company on which of the alternative sales mix you would recommend. Justify your answer. (12 marks)

- (b) A company intends to start selling a new pair of hand held pliers in the upcoming financial year. The company wishes to establish how many hand held pliers should be sold in order to break even on this investment. The chief accountant has provided the following data:

Fixed costs	Sh.
Metal molding machine	1,000,000
Plastic grip molder	250,000
Sander	50,000
Variable cost (per unit)	Sh.
Packaging material	400
Raw materials	700
Grip metal	200
Shipping	75

#### Additional information:

1. The marketing department estimates that they could sell the new pair of hand held pliers for Sh.1,500 per unit and that projects' sales will average 16,000 units per month.
2. The company wishes to break even and start to earn profit within the first month.
3. The target profit level at the end of the first month is Sh.250,000.

**Required:**

- (i) The number of units required to break even. (2 marks)
  - (ii) Based on the projected monthly sales, calculate the margin of safety. Comment on your answer. (3 marks)
  - (iii) The number of units required to earn the target profit at the end of the first month. (3 marks)
- (Total: 20 marks)**

**QUESTION TWO**

- (a) Rivt Fries Enterprises Ltd. manufactures food products. The details of the manufacturing cost of one of its products branded "Tamu" is provided below:

**Standard cost per unit:**

Materials: 6 kilograms at Sh.480 per kilogramme

Labour: 4.8 hours at Sh.800 per hour.

**Additional information:**

1. The actual cost for the month of April 2016 was as follows:  
Materials: 59,000 kilograms at Sh.500 per kilogramme  
Labour: 47,500 hours at Sh.900 per hour
2. The actual production amounted to 10,000 units.
3. The variable production overheads are absorbed at 50% of the direct labour cost.

**Required:**

- (i) The material cost variance. (4 marks)
  - (ii) The labour cost variance. (4 marks)
  - (iii) Reconciliation of standard and actual costs in (a)(i) and (a)(ii) above. (4 marks)
- (b) Talde Ltd., a manufacturing company, is concerned about the variation in its total manufacturing costs. The production manager has therefore requested you to estimate a predictable cost pattern to be used in future cost prediction.

Based on judgement, the plant manager has classified each manufacturing cost as fixed, variable, or part fixed and part variable. He has provided you with the following information for the month of April 2016 when 10,000 units were produced:

Details of cost	Cost Sh.	Cost behaviour
Direct materials	420,000	Variable
Direct labour	150,000	Variable
Depreciation	80,000	Fixed
Telephone	2,000	Fixed
Other utilities	40,000	20% fixed
Supervisors salary	200,000	80% fixed
Equipment repairs	60,000	10% fixed
Indirect materials	4,000	Variable
Factory maintenance	60,000	90% fixed

**Required:**

- (i) Using the accounts analysis method, estimate the fixed cost per month and the variable cost per unit. (7 marks)
  - (ii) Based on your answer in part (b)(i) above, compute the incremental cost of producing 2,000 units. (1 mark)
- (Total: 20 marks)**

### QUESTION THREE

- (a) Describe six cost accounting tasks that could be routinely undertaken by using computers. (6 marks)
- (b) QFX Ltd. uses batch costing in cost analysis. The following information is provided:

Batch	P	Q	R	S
Output in units	2,500	600	2,000	1,200
<b>Cost per batch</b>				
Direct labour (Sh.)	92,000	15,200	68,800	24,000
Direct materials (Sh.)	16,500	7,500	21,000	9,000
Labour hours per batch	11,500	1,900	8,600	3,000

The following data relates to the total production overheads for the period ended 31 March 2016:

Particulars	Cost (Sh.)	Cost driver
Stores	82,500	Number of requisitions
Inspection	58,500	Number of inspections
Set-up	62,000	Number of set-ups
Engineering support	83,000	Engineering hours
Machine related costs	146,000	Machine hours
Materials dispatch	<u>68,000</u>	Materials movements
	<u>500,000</u>	

Corresponding cost driver volumes for the batches were as follows:

	P	Q	R	S	Total
Requisitions	400	210	430	260	1,300
Inspections	180	80	130	80	470
Setups	120	70	160	80	430
Engineering hours	650	380	520	350	1,900
Machine hours	5,200	2,550	6,100	3,250	17,100
Materials movement	1,800	700	2,050	400	4,950

#### Required:

Compute the batch cost and unit cost using:

- (i) Traditional costing based on a labour hour overhead absorption rate. (6 marks)
- (ii) Activity based costing (ABC) system. (8 marks)
- (Total: 20 marks)**

### QUESTION FOUR

Mark Ltd. operates a budgetary control system. The following is the company's income forecast for the four months period ending 31 August 2016:

	2016			
	May	June	July	August
	Sh. "000"	Sh. "000"	Sh. "000"	Sh. "000"
Sales	45,000	55,000	75,000	50,000
Cost of sales	(21,000)	(28,000)	(42,000)	(22,000)
Gross margin	<u>24,000</u>	<u>27,000</u>	<u>33,000</u>	<u>28,000</u>
Selling and administration expenses:				
Selling expenses	7,000	8,400	11,200	7,300
Administration expenses	<u>5,500</u>	<u>5,900</u>	<u>6,900</u>	<u>5,200</u>
Total selling and administration expenses	<u>12,500</u>	<u>14,300</u>	<u>18,100</u>	<u>12,500</u>
Net operating income	<u>11,500</u>	<u>12,700</u>	<u>14,900</u>	<u>15,500</u>



**Additional information:**

1. Administration expenses include depreciation of Sh.1,800,000 each month.
2. 20% of the sales are on cash basis.
3. Credit sales are collected over a 3-month period with 20% collected in the month of sale, 65% in the month following the month of sale, and 15% in the second month following sale.
4. Sales for the months of March 2016 and April 2016 totalled Sh.27 million and Sh.33 million respectively.
5. Inventory purchases are paid for within 15 days. Therefore, 50% of a month's inventory purchase are paid for in the month of purchase and the remaining 50% paid for in the following month. Accounts payable for inventory purchases as at 30 April 2016 totalled Sh.11.1 million.
6. The company maintains its ending inventory levels at 25% of the cost of the merchandise to be sold in the following month. The merchandise inventory as at 30 April 2016 amounted to Sh.5.25 million.
7. Land costing Sh.4.3 million will be purchased in May 2016.
8. Dividends of Sh.1.3 million will be declared and paid in July 2016.
9. The cash balance on 30 April 2016 amounted to Sh.8.4 million and the company must maintain a cash balance of at least this amount at the end of each month. In case of any deficit, a bank overdraft is obtained.

**Required:**

For the three months ending 31 July 2016, prepare:

- (a) Debtors collection schedule. (6 marks)
  - (b) Creditors payment schedule. (6 marks)
  - (c) Cash budget. (8 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- (a) Explain three benefits that could be derived by an organisation from operating an integrated cost accounting system. (6 marks)
  - (b) Describe three factors to be considered by an organisation when undertaking performance measurements. (6 marks)
  - (c) Discuss four requirements for the proper operation of Just-in-time (JIT) system in an organisation. (8 marks)
- (Total: 20 marks)**
- .....

# KASNEB

## CPA PART I SECTION 2

### MANAGEMENT ACCOUNTING

#### PILOT PAPER

September 2015.

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) New Colour Limited manufactures two joint products Exe and Wye. A by product Zed is also produced. Output from Process One is transferred to Process Two where the joint products emerge. The following information is available for July 2015:

1. Process One cost data:

Raw material inputs (40,000 kgs)	Sh.9,620,000
Direct wages	Sh. 7,650,000
Overheads	Sh. 11,050,00

Output:

Transferred to Process Two	30,000 Kgs.
By product Zed	2,000 Kgs.
Closing work in progress (50% complete as to conversion costs)	8,000 Kgs.
2. By product Zed retails at Sh.75 per kg. Additional selling costs amount to Sh.15 per kg. 500 kgs. were sold in July 2015.
3. Process Two cost data:

Additional direct materials	Sh.3,852,500
Direct wages	Sh.6,099,609.5
Overheads	Sh.3,828,750

Output:

Finished goods (Exe and Wye)	28,000 Kgs.
Losses in the process	2,000 Kgs.
4. The output is produced in the ratio of 2:3 for products Exe and Wye respectively.
5. Normal loss in the process is 2.5%. Scrap value per unit is Sh.200.
6. The selling price per unit of each product is as follows:

Exe	Sh.2,000 per Kg.
Wye	Sh.1,218.75 per Kg.
7. Joint costs are allocated on the basis of sales revenue at separation point.

#### Required:

- (i) Statement of production for Process One. (8 marks)
  - (ii) Process Two account. (8 marks)
- (b) In the context of service costing, explain the main features of a service. (4 marks)
- (Total: 20 marks)**

#### QUESTION TWO

- (a) Explain six requirements of an effective budgetary control system. (6 marks)
- (b) A limited company operates a system of standard costing. The following information is available for the month of July 2015:

1. Actual cost data:

	Sh.
Direct materials purchased (36000 Kgs.)	1,890,000
Direct wages (6800 hours)	2,210,000
Variable production overheads	620,000
Fixed production overheads	1,880,000

2. Output during the period was 3500 units of product Y.
3. The standard production units were budgeted at 4800 units.
4. The standard cost data per unit is as follows:

	Sh.
Direct materials purchased (Sh.500 per Kg.)	500
Direct wages (2 hours)	600
Variable production overheads	200
Fixed production overheads	400
	<u>1700</u>

5. Labour records show 6200 hours were worked. 600 hours were recorded as idle time due to machine breakdown.

**Required:**

- (i) Direct material cost, price and usage variance. (4 marks)
- (ii) Labour cost, rate, efficiency and idle time variance. (6 marks)
- (iii) Variable overheads cost variance. (2 marks)
- (iv) Fixed overhead expenditure variance. (2 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) Explain four ways in which a company could achieve cost reduction. (4 marks)
- (b) Distinguish between “cost centre”, “profit centre” and “investment centre”. (6 marks)
- (c) Explain the term “balanced scorecard”. (2 marks)
- (d) Describe four perspectives of balanced scorecard giving two measures of performance that could be used. (8 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) Alpha Limited manufactures three products in two production departments; machining and finishing. It also has two service departments, a canteen and machine maintenance departments. The following are the budgeted cost data for the coming year:

Department	Machining	Finishing	Canteen	Maintenance
Allocated overheads (Sh.)	3,502,000	1,748,000	800,000	400,000
No. of employees	15	9	2	6
Maintenance orders	52	13	-	-
Products	Benta	Centa	Denta	
Production (units)	3000	4500	2000	
Direct material cost per unit (Sh.)	120	150	170	
Direct labour hours per unit:				
Machining (Sh.60 per hour)	3	2	1.5	
Finishing (Sh.50 per hour)	4	2	2	
Machine hour per unit:				
Machining	2	4	3	

Overheads are absorbed on machine hours in machining and labour hour in finishing.

**Required:**

Calculate the budgeted cost per unit for each product.

(14 marks)

- (b) The finishing department of a factory has the following payroll data for the month of August 2015:

	Direct employees	Indirect employees
Total attendance time	19800 hours	7050 hours
Normal working hours	18000 hours	6400 hours
Productive time	18850 hours	-
Non productive time		
- Due to poor supervision	400 hours	-
- Normal machine repairs	550 hours	-
Basic hourly rate per hour	Sh.150	Sh.150

Overtime is paid at a premium of 40% of base rate. 40% of the overtime for both categories was worked to meet specific request of a customer. A general bonus of Sh.625,000 was paid to all the employees.

**Required:**

Wages control account to show the wages allocation for the period.

(6 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

Omega Manufacturers Limited has just acquired new production facilities to produce product Omega. The product will be produced in two departments, crushing and filtering.

**Additional information:**

- The product will retail at a price of Sh.500 per litre.
- Variable production costs are as follows:

	Crushing	Filtering
Direct materials	Sh. 50	-
Direct labour	Sh.150	Sh.40
Variable production overheads	Sh. 40	Sh.20

- Fixed production overheads amount to Sh.5,000,000 for both departments.
- The Crushing department is currently operating at full capacity with available labour hours being 10,000.
- Each unit of Omega requires 0.25 hours in the Crushing department.

**Required:**

- Break-even point in units and revenue. (4 marks)
  - Margin of safety in units. (2 marks)
  - Current budgeted profit. (2 marks)
- A customer has offered to purchase 2000 units of product Alpha, another product that Omega Manufacturers Limited can produce with the new production facility:

Cost data is as follows for product Alpha:

- Cost per unit

	Crushing	Filtering
Direct materials	Sh. 250	-
Direct labour	Sh. 300	Sh.80
Variable production overheads	Sh. 50	Sh.20

- Each unit of Alpha requires 0.5 hours in crushing department.
- The customer has offered a price of Sh.1500 per unit of Alpha.
- Incremental fixed costs associated with the offer amount to Sh.1,000,000.

**Required:**

Advise the company on whether to accept the offer.

(6 marks)

- The management is considering a proposal to establish a new market in a neighbouring country for product Omega. This will require expansion of the production facility.

The proposal will increase costs as follows:

Advertising expenses	10% of revenue.
Travelling expenses	10% of prime cost.
Fixed production overheads	Sh.2,500,000

Target annual sales volume will be 10,000 units in the new market at a price of Sh.900 per unit.

**Required:**

Advise the company on whether it should market product Omega in the new country.

(6 marks)

**(Total: 20 marks)**

# KASNEB

## CPA PART I SECTION 2

### MANAGEMENT ACCOUNTING

TUESDAY: 24 November 2015.

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) Describe three benefits of management accounting. (6 marks)
- (b) Highlight four purposes of performance measurements. (4 marks)
- (c) The net profit of Pine Ltd., a manufacturing concern for the year ended 30 September 2015 as shown by the financial accounts amounted to Sh.257,510. The cost accounts for the same period disclosed a net profit of Sh.344,800.

On examination of both sets of accounts, the following facts were discovered:

	Sh.
1. Production overheads under-recovered in cost accounts	6,240
2. Administrative overheads over-recovered in cost accounts	3,400
3. Depreciation charged in financial accounts	22,400
4. Depreciation recovered in cost accounts	25,000
5. Interest on investments not included in cost accounts	16,000
6. Obsolescence loss charged in financial accounts	11,400
7. Income tax provided for in financial accounts	80,600
8. Bank interest and dividends received in financial accounts	2,450
9. Loss due to depreciation in stock value charged in financial accounts	13,500

#### Required

- A reconciliation statement between the net profit as per cost accounts and as per financial accounts. (10 marks)
- (Total: 20 marks)**

#### QUESTION TWO

- (a) Describe four advantages of budgetary control in an organisation. (8 marks)
- (b) Tarvol Ltd. manufactures and sells a single product. The company's contribution format income statement for the year ended 31 October 2015 is given below:

	Total Sh.	Per unit Sh.	Percentage of sales
Sales (20,000 units)	1,200,000	60	100%
Variable expenses	<u>900,000</u>	<u>45</u>	<u>?</u>
Contribution margin	300,000	<u>15</u>	<u>?</u>
Fixed expenses	<u>(240,000)</u>		
Net income	<u>60,000</u>		

The management of the company is anxious to increase the company's profit and has asked for analysis of a number of items.

#### Required:

- (i) Compute the company's contribution margin ratio and variable expense ratio. (4 marks)
- (ii) Compute the company's break-even point both in units and in shillings. (4 marks)
- (iii) Compute the increase in net operating income of the company assuming that sales will increase by Sh.400,000 in the next financial year and the cost behaviour patterns will remain unchanged. Use the contribution margin ratio obtained in (b) (i) above to compute your answer. (2 marks)
- (iv) Refer to the original data. Assume that in the next financial year, the management targets the company to earn a profit of at least Sh.90,000. Compute how many units would have to be sold to meet this target profit. (2 marks)

**(Total: 20 marks)**

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Out of 3

**QUESTION THREE**

(a) Explain three purposes of cost classification by behaviour.

(6 marks)

(b) Kena Stores provided the following information in respect of their operations for the month of July 2015:

Receipts		Issues	
Date		Date	
3 July	600 units at Sh.60	5 July	1,600 units
7 July	1,000 units at Sh.70	12 July	400 units
18 July	2,400 units at Sh.80	20 July	1,200 units
		29 July	600 units
		31 July	200 units

**Additional information:**

- Materials in store as at 30 June 2015 were 2,000 units at Sh.50.
- On 9 July 2015, part of the materials issued on 5 July 2015 amounting to 200 units were returned.
- On 15 July 2015, 100 units were returned to Kena Stores.
- On 21 July 2015, there was materials wastage of 500 units.
- Returns from a June 2015 issue of 100 units at Sh.45 was received on 25 July 2015.
- On 28 July 2015, there was shortage of stock of 20 units.
- Kena Stores uses the first in first out (FIFO) method to value its inventory.

**Required:**

A stores ledger card for Kena Stores for the month of July 2015.

(14 marks)

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

(a) Respor Ltd. manufactures three products namely; A, B and C. The company has four departments namely; W, X, Y and Z. The following information relates to Respor Ltd. for the year ended 30 June 2014:

	Sh."000"
Rates	25,000
Depreciation: Buildings	45,000
Machinery	20,000
Maintenance of buildings	15,000
Insurance: Buildings	5,000
Machines	4,000
Inventory	12,000
Workman's compensation	4,000
Electricity: Lighting	20,000
Power	24,000
Supervision	60,000
Personnel, time keeping and payroll	40,000
Canteen expenses	12,000
	<u>286,000</u>

**Departmental information:**

	W	X	Y	Z
Area (square metres)	4,000	2,000	3,000	1,000
Value of machines (Sh."000")	80,000	60,000	60,000	-
Running of machines	15,000	7,000	8,000	-
Average inventory value (Sh."000")	20,000	15,000	15,000	10,000
Wages paid (Sh."000")	120,000	170,000	80,000	30,000
Number of employees	15	20	10	5

**Required:**

Overhead analysis sheet.

(10 marks)

- (b) Qui Ltd. manufactures a single product branded "Q". The standard selling price and variable cost per unit of product "Q" are as follows:

		Sh.
Selling price		136
Materials	2 kilograms at Sh.10 per kilogramme	20
Labour	3 hours at Sh.24 per hour	72

**Additional information:**

- The budgeted sales for the month of October 2015 were 38,000 units.
- The actual results for the month of October 2015 were as follows:
 

Production and sales	36,000 units
Selling price per unit	Sh.134
Materials (76,000 kilogrammes)	Sh.754,000
Labour (114,000 hours paid)	Sh.2,656,000
- The company operates a standard costing system and a just-in time (JIT) purchasing and production system.

**Required:**

Showing applicable variances, prepare a statement that reconciles the budgeted contribution with the actual contribution for the month of October 2015.

(10 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) Highlight six assumptions of cost volume profit (CVP) analysis. (6 marks)
- (b) Computech has two fully automated machines M1 and M2 through which metal is passed to produce stands. There are production constraints and Computech has decided to produce only one of the three stand models P, Q and R during the next financial year.

The forecasts for the next financial year are as follows:

	P	Q	R
Maximum sales (units)	7,400	10,000	12,000
Stand unit data:			
Selling price (Sh.)	900	800	1,000
Machine time: M1 (hours)	0.25	0.15	0.3
M2 (hours)	0.2	0.225	0.25

**Additional information:**

- Maximum operating hours for machine M1 is 1,700 hours while for machine M2 is 1,920 hours.
- Maximum quantity of metal available amounts to 17,000 metres.
- Each stand requires 2 metres of metal.
- The cost of metal amounts to Sh.50 per metre.
- Variable machine overheads for machine M1 and machine M2 are Sh.500 per hour and Sh.600 per hour respectively.
- Production capacity is dedicated to the stands only.

**Required:**

Advise the management of Computech on which stand to produce and sell indicating the number of units and resulting contribution.

(14 marks)

**(Total: 20 marks)**

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kasneb

CPA PART I SECTION 2

MANAGEMENT ACCOUNTING

WEDNESDAY: 25 November 2020.

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) Mejwa Ltd. is a manufacturing firm operating in the textile industry. The company recorded the following transactions in relation to product BT during the month of January 2020:

Date	Purchases		Sales	
	Quantity (Units)	Unit price Sh.	Quantity (Units)	Unit price Sh.
January: 1	12,000	150		
3	8,000	160		
7			12,000	200
8	10,000	155		
13			5,000	210
17			8,000	205
20	12,000	140		
23	7,000	152.5		
25			11,000	200
27			10,000	202.5
31			200	212

Additional information:

- The opening inventory of product BT on 1 January 2020 comprised of 9,500 units purchased at a cost of Sh.135 per unit.
- On 9 January 2020, the company reported a shortage of 300 units.
- On 19 January 2020, 600 units of the units sold on 17 January 2020 were returned by the customer.

Required:

- (i) A store ledger account for the month of January 2020 using first in first out (FIFO) method of inventory valuation. (10 marks)
- (ii) The value of the closing stock. (2 marks)
- (b) Ujenzi Company specialises in the manufacture of building blocks used in the construction industry. The cost accountant of the company has prepared a schedule of estimated overhead cost on the assumption that production will be 170,000 blocks.

Overhead costs have been classified as fixed and variable costs by the company's cost accountant as indicated below:

Overheads	Amount Sh. "000"
Indirect materials	5,700 (all variable)
Indirect labour	4,100 (all variable)
Rent and rates	2,800 (all fixed)
Machinery depreciation	1,700 (all fixed)
Maintenance	5,200 (3,100 variable)
Technical support	1,620 (all fixed)
Storage cost	4,300 (4,100 variable)
Heat and light	3,100 (1,000 fixed)
Water bill	1,700 (650 fixed)
Transport	2,900 (900 fixed)
Supplies	4,000 (all variable)



**Required:**

Using accounts analysis method, determine a cost estimation equation in the form of  $Y=a+bX$  taking the number of blocks to be the only cost driver. (8 marks)

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

(a) Discuss four objectives of budgetary control system in an organisation. (8 marks)

(b) A company uses two methods to remunerate its casual workers as follows:

- **Piece rate with guaranteed time rate**

The company pays its casual workers Sh.25 for every good output produced by them. Any spoiled output is paid at the rate of Sh.10 and a penalty of 8% is charged based on the rate of the good production. The employees are guaranteed a minimum monthly pay of Sh.8,000.

- **Differential piece rate**

An employee is compensated on piece rate basis and the following schedule is applied to determine his or her remuneration:

Number of units	Rate of wages per unit
	Sh.
1 - 250	15
251 - 500	20
501 - 1,000	25
Over 1,000	30

Spoilt units are deducted from the first production, paid at the rate of Sh.10 per unit and a penalty of 8% applied at the differential rate of the first production.

Three employees of the company produced the following number of units during the month of March 2020:

Employee	Number of units produced	Spoilt units
Amboga	2,000	200
Banyala	1,800	100
Charlie	1,650	50

**Required:**

(i) Determine the wages payable to each employee under the two labour remuneration methods. (9 marks)

(ii) Advise each employee on the best labour remuneration method to accept based on your computations in b (i) above. (3 marks)

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

(a) Describe four limitations of management accounting in an organisation. (4 marks)

(b) A manufacturing firm produces three products namely; X, Y and Z.

The following information relates to the production of the three products:

Details:	Product		
	X	Y	Z
	Sh.	Sh.	Sh.
Unit selling price	250	460	320
<b>Variable production cost per unit:</b>			
Raw materials	70	155	110
Labour	24	44	32
Overheads	56	98	75

**Additional information:**

1. The total fixed production cost for the three products amounted to Sh.400,000.
2. Labour hours are currently limited to 25,000 hours paid at an hourly rate of Sh.8 during the production period.
3. The maximum demand for product X, Y and Z are 2,000 units, 1,800 units and 3,000 units respectively.

**Required:**

(i) The current shortfall in labour hours at maximum demand. (4 marks)

(ii) The optimal product mix and the resultant profit. (12 marks)

**(Total: 20 marks)**

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Out of 4



#### QUESTION FOUR

Zaidi Merchants is a newly established manufacturing enterprise that uses standard costing in its operations. The firm manufactures a product branded "MX" which has a standard selling price of Sh.120 per unit. Inventory is valued at standard cost.

The standard variable cost of one unit of MX is as follows:

	Sh.
Direct materials	20
Direct labour (6 hours at Sh.8 per hour)	48
Production overhead	24
<b>Total</b>	<b>92</b>

#### Additional information:

1. The budgeted and actual activity levels for the month of April 2020 were as follows:

	Budgeted units	Actual units
Sales	25,000	25,000
Production	25,000	26,000

2. The actual sales and variable costs for the month of April 2020 were as follows:

	Sh.
Sales	2,995,000
Direct materials (purchased and used)	532,800
Direct labour (150,000 hours)	1,221,000
Variable production overhead	614,000

#### Required:

(a) Calculate the following cost variances for the month of April 2020:

- (i) Total direct materials cost variance. (2 marks)
- (ii) Total variable production overheads variance. (2 marks)
- (iii) Direct labour rate variance. (2 marks)
- (iv) Direct labour efficiency variance. (2 marks)

(b) A reconciliation statement between actual and budgeted profit or loss for the month of April 2020. (8 marks)

(c) Explain two factors to be taken into account in deciding whether or not to investigate individual variances. (4 marks)

**(Total: 20 marks)**

#### QUESTION FIVE

(a) In the context of costs classification, explain three types of costs based on behaviour. (6 marks)

(b) Suggest four reasons that would lead a cost accountant to prefer Just-in-Time (JIT) purchasing over conventional purchasing models. (4 marks)

(c) BIX Feeds Ltd. operates several production processes involving the mixing of ingredients to produce bulk animal feedstuffs. Its main product branded "HW" undergoes two processes; Process 1 and Process 2.

The following information relates to Process 2 for the period under consideration:

Costs incurred	Sh.
Transfers from Process 1	18,770,400
Raw materials cost	4,797,200
Conversion costs	6,317,600
Opening work-in-progress	300,900



**Production:**

Opening work-in-progress  
(100% complete, apart from Process 2 conversion costs  
which were 50% complete)  
Transfers from Process 1  
Completed output  
Closing work-in-progress  
(100% complete apart from Process 2 conversion costs  
which were 75% complete)

**Units**

1,200  
  
112,000  
105,400  
1,600

**Additional information:**

1. Normal wastage of materials (including product transferred from Process 1), which occurs in the early stages of Process 2 (after all materials have been added), is expected to be 5% of input.
2. Process 2 conversion costs are all apportioned to units of good output.
3. Wastage materials have no saleable value.

**Required:**

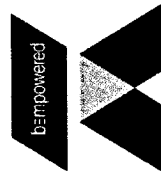
Process 2 account for the period, using the First-in-First-Out (FIFO) method.

(10 marks)

**(Total: 20 marks)**

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**kasneb**

**CPA PART I SECTION 2**

**MANAGEMENT ACCOUNTING**

**THURSDAY: 28 November 2019.**

**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) Examine three challenges that young medium-sized organisations might face when introducing cost accounting system into their operations. (6 marks)
- (b) Dilica Ltd. makes and sells a single product called “Delicious”. It is currently operating at 80% of full capacity, producing 112,000 units per month. The total monthly costs at the current level of operation are Sh. 611,000. At 100% capacity, total monthly costs would be Sh.695,000 while fixed costs would be the same per month at all levels of capacity between 80% and 100%.

**Additional information:**

1. At the normal selling price of the product, the contribution to sales ratio is 60%.
2. A new customer has offered to buy 25,000 units of the product each month at 20% below the normal selling price.
3. Dilica Ltd. estimates that for every five units that it sells to this customer, it will lose one unit of its current monthly sales to other customers.

**Required:**

- (i) The variable cost per unit of product “Delicious” and the total fixed cost per month. (5 marks)
- (ii) The current normal sales price per unit, and the contribution per unit at this price. (4 marks)
- (iii) Advise the management of Dilica Ltd. on whether the offer from the new customer should be accepted. (5 marks)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) Explain three types of standards as used in standard costing. (6 marks)
- (b) The following information has been provided to you by the cost accountant of Lela Ltd. for the month of September 2019:

	Sh.
<b>Balances at the beginning of the month:</b>	
Stores ledger control account	241,750
Work-in-progress control account	192,100
Finished goods control account	341,640
Prepayments of production overheads brought forward	21,000
<b>Transactions during the month:</b>	
Materials purchased	761,500
Materials issued: To Production	263,500
For Factory maintenance	32,800
Total wages paid: Direct	220,100
Indirect	42,320
Direct wages charged to production	141,100
Recorded non-productive time of direct wages	52,300
Direct wages incurred in production of capital equipment	26,700
Selling and distribution overheads incurred	52,400

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	<b>Sh.</b>
Other production overheads incurred	122,000
Sales	754,000
Cost of finished goods sold	598,300
Cost of goods completed transferred to finished goods account	621,300
Value of work-in-progress at the end of the month	243,600

**Additional information:**

Production overheads absorption rate is 150% of direct wages and it is the policy of the company to include a share of production overheads in the cost of capital equipment constructed in the factory.

**Required:**

Prepare the following accounts for the month of September 2019:

- (i) Stores ledger control account. (3 marks)
- (ii) Wages control account. (3 marks)
- (iii) Work-in-progress control account. (3 marks)
- (iv) Finished goods control account. (2 marks)
- (v) Production overhead control account. (3 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) Explain the meaning of the following terms as used in cost estimation:

- (i) Cost allocation. (2 marks)
- (ii) Cost centre. (2 marks)
- (iii) Cost driver. (2 marks)
- (iv) Cost pool. (2 marks)

- (b) Supreme Ltd. is a company that specialises in making high quality furniture to customers orders. The company has three production departments and two service departments.

Budgeted overhead costs for the year ending 30 April 2020 are as follows:

	<b>Sh. "000"</b>
Rent and rates	12,800
Machine insurance	6,000
Telephone charges	3,200
Depreciation	18,000
Production supervisor's salary	24,000
Heating and lighting	<u>6,400</u>
	<u>70,400</u>

The three production departments A, B and C and the two service departments X and Y are housed in new premises, the details of which, together with other statistics and information are provided below:

	<b>Department</b>				
	<b>A</b>	<b>B</b>	<b>C</b>	<b>X</b>	<b>Y</b>
Floor area occupied (square metres)	3,000	1,800	600	600	400
Machine value (Sh. "000")	240	100	80	40	20
Direct labour hours ("000")	3,200	1,800	1,000	-	-
Labour rate per hour (Sh.)	380	350	340	300	300
Allocated overheads specific to each department (Sh. "000")	2,800	1,700	1,200	800	600
Service department X costs apportioned	50%	25%	25%		
Service department Y costs apportioned	20%	30%	50%		

**Required:**

- (i) Overheads analysis sheet showing the overhead costs budgeted for each department and the basis of apportionment used. (8 marks)
- (ii) Two pieces of furniture are to be manufactured for customers. The following information relates to the two pieces of furniture:

		<b>Job 123</b>	<b>Job 124</b>
Direct materials (Sh.)		15,400	10,800
		<b>Hours</b>	<b>Hours</b>
Direct labour - Department:	A	20	16
	B	12	10
	C	10	14

**Required:**

The total production cost for each job.

(4 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

- (a) Explain three differences between job costing and process costing. (6 marks)
- (b) Granite City Works (GCW) Ltd. is a manufacturer of cemetery headstones and architectural granite slabs. The company excavates blocks of granite from its joint processes of Quarry and Cutting. Two joint products; Cemetery monuments and Architectural granite are produced along with a by-product called "grit".

Cemetery monuments are cut, polished and engraved in a variety of standard shapes, sizes and patterns and sold to funeral homes. Architectural granite slabs are special-ordered by contractors for office buildings. These slabs are cut and polished to the exact customer's specifications. The small pieces of granite resulting from the cutting process are crushed and sold to farm-supply outlets as poultry grit.

**Additional information:**

1. GCW Ltd. has provided the following output and cost information:

<b>Process</b>	<b>Output (Tons)</b>	<b>Cost (Sh. "000")</b>
Quarry	100,000	350,000
Cutting	90,000	250,000
Monuments	25,000	300,000
Granite slabs	60,000	400,000
Grit	5,000	10,000

2. A local distributor purchases all of the grit that is produced at a price of Sh.40,000 per ton.
3. Assume that the company uses the physical units method to allocate joint costs.

**Required:**

The cost per ton of monuments and granite slabs, assuming that the grit is accounted for as:

- (i) Other income. (8 marks)
- (i) By-product revenue deducted from the main product cost. (6 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

- (a) Summarise four disadvantages associated with Just-In-Time (JIT) inventory management system. (4 marks)
- (b) Solhut Ltd. manufactures a product branded "PQ" which is sold at Sh.800 per unit. The variable costs per unit of product "PQ" are provided below:

	<b>Sh.</b>
Direct materials: M <sub>1</sub> (2 Kgs at Sh.20 each)	40
Direct materials: M <sub>2</sub> (3 Kgs at Sh.20 each)	60
Labour (2 hours at Sh.35 each)	70
Variable overheads at Sh.40 per hour	80

The management of Solhut Ltd. have estimated that for the first six months of the year ending 30 June 2020, the following quantities will be sold on credit:

<b>Month:</b>	January	February	March	April	May	June
<b>Quantity (Units)</b>	3,920	2,940	3,430	4,410	4,900	4,410

**Additional information:**

1. Customers will be allowed one month's credit.
2. The closing inventory for each month is equal to 10% of the next month's sales of product "PQ".
3. Production takes place in the month of sale.
4. Materials are purchased one month before use and are paid for two months after purchase.
5. Labour and variable overheads are paid for in the month of production.
6. Fixed overhead per month are expected to be Sh.300,000 and includes depreciation of Sh.35,000. The fixed overheads are payable in the month in which they are incurred.
7. The opening cash balance as at 1 February 2020, is expected to be Sh.2,500,000.

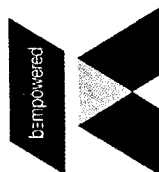
**Required:**

For the months of February 2020 to April 2020, prepare:

- (i) Production budget in units. (6 marks)
- (ii) Cash budget. (10 marks)

**(Total: 20 marks)**

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CPA PART I SECTION 2

MANAGEMENT ACCOUNTING

WEDNESDAY: 22 May 2019.

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) Financial accounting is the branch of accounting that organises accounting information for presentation to interested parties outside the business.

Management accounting on the other hand uses information provided by both financial accounting and cost accounting with the purpose of providing information to managers for policy formulation, planning and decision making.

**Required:**

With regard to the above statement, describe four differences between management accounting and financial accounting. (8 marks)

- (b) (i) Highlight four advantages of regression method of cost estimation. (4 marks)

- (ii) The following data relates to the total costs incurred by Makini Garage Ltd. in a period of eight weeks:

Week	Number of cars repaired	Total costs incurred Sh. "000"
1	90	5,200
2	100	6,000
3	120	6,200
4	150	3,530
5	160	3,850
6	220	4,300
7	300	5,870
8	340	7,150

**Required:**

Using regression analysis method, formulate an equation in the form of  $Y = a + bx$  that could be used to estimate the total costs incurred. (8 marks)

(Total: 20 marks)

QUESTION TWO

- (a) Baraka Distributors Ltd. purchases and sells a single product branded "M".

The following information is provided for product M:

1. Annual demand for the product is 30,000 units.
2. The ordering cost per order is Sh.2,500.
3. The holding cost is expressed as 20% of the purchase price.
4. A new supplier in the market has presented Baraka Distributors Ltd. with a proposal for the following range of quantities and respective price per unit:



Range of quantities	Price (Sh.)
1 – 3,000	21
3,001 – 5,000	19
5,001 – 7,000	17
7,001 – 9,000	15.50
9,001 – 10,000	13

**Required:**

Advise the management of Baraka Distributors Ltd. on the range of quantities to purchase.

(8 marks)

- (b) Pendo Ltd. makes three types of metallic doors; security, house and office which are made from the same basic materials (steel bars and iron sheets).

The standard unit costs and selling prices of the three types of doors are as provided below:

	Door type		
	Security	House	Office
	Sh.	Sh.	Sh.
Direct materials:			
Steel bars	3,500	1,960	4,200
Iron sheets	10,920	11,760	10,500
Direct labour:			
Machining	2,100	1,400	2,660
Spraying	980	560	840
Unit selling price	24,500	26,040	26,600

**Additional information:**

1. The sales for the month of December 2018 are as follows:

Door type	Units
Security	200
House	200
Office	160

2. Owing to an industrial dispute, suppliers of the iron sheets have estimated that only 5,124 square metres of iron sheets are available for the period. The iron sheets cost Sh.1,000 per square metre.

**Required:**

Advise the management of Pendo Ltd. on the most profitable mix of the three types of doors.

(12 marks)

**(Total: 20 marks)**

**QUESTION THREE**

- (a) The choice of an overhead absorption base is a matter of personal judgement.

Explain the extent to which you agree or disagree with the above statement.

(4 marks)

- (b) Machakato Ltd. makes three main products using the same equipment. Total overheads amounting to Sh.720,000 were charged for the last quarter of the financial year ended 31 December 2018.

Details of the three products for the months of September 2018 to December 2018 are as follows:

	Product		
	A	B	C
Labour hours per unit	2	3	1
Machine hours per unit	3	2	5
Material cost per unit (Sh.)	45	28	52
Volume (Units)	1,500	2,400	11,000

**Additional information:**

- Direct labour costs are Sh.14 per hour.
- Production overheads are absorbed on a material cost percentage basis.
- The machine rate for the period under consideration is Sh.56 per machine hour.
- Further analysis shows that the total production overheads could be apportioned as follows:
  - Cost relating to set-ups 20%
  - Cost relating to materials movement 35%
  - Cost relating to inspection 45%

5. The following activity volumes are associated with the product line for the period:

		Total activities for the period		
		Number of set-ups	Number of material movements	Number of inspections
Product:	A	78	12	140
	B	112	21	170
	C	<u>460</u>	<u>82</u>	<u>640</u>
		<u>650</u>	<u>115</u>	<u>950</u>

**Required:**

Cost per unit for each product using:

- (i) Traditional method. (8 marks)
- (ii) Activity Based Costing (ABC). (8 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- (a) Highlight four purposes of costs classification in an organisation. (4 marks)
- (b) The following information was obtained from the books of Mambo Yote Ltd., a manufacturing company based in a coastal town for the month of April 2019:

Opening inventory (Units) 50,000

Valuation	Sh.
Materials	250,000
Labour	100,000
Overheads	250,000

Units introduced 200,000

Cost incurred	Sh.
Materials	1,000,000
Wages	750,000
Overheads	700,000

**Additional information:**

- During the month of April 2019, 150,000 units were completed and transferred to process II.
- Closing inventory amounted to 100,000 units with the following degrees of completion:
 

Materials	100%
Labour	50%
Overheads	40%
- Due to the nature of the production process, no losses are anticipated.
- The company uses the average cost method to value work-in-progress.

**Required:**

- (i) Statement of equivalent production. (4 marks)
- (ii) Statement of apportionment of cost. (6 marks)
- (iii) Process I account. (6 marks)
- (Total: 20 marks)**

### QUESTION FIVE

- (a) Limu Processing Company Ltd. manufactures a standard product branded "LM". Currently, it is operating on a normal activity level of 70% with an output of 6,300 units.

The sales director believes that a realistic forecast for the next budget period would be at an activity level of 50%.

The following data relates to the forecasted costs of the product for different levels of activity:

	60%	70%	80%
	Sh.	Sh.	Sh.
Direct materials	151,200	176,400	201,600
Direct wages	64,800	75,600	86,400
Production overheads	150,400	164,800	179,200
Administration overheads	126,000	126,000	126,000
Selling and distribution overheads	<u>169,200</u>	<u>176,400</u>	<u>183,600</u>
<b>Total cost</b>	<b><u>661,600</u></b>	<b><u>719,200</u></b>	<b><u>776,800</u></b>

Profit is 20% of selling price.

#### Required:

- (i) Flexible budget based on a 50% level of activity. (7 marks)
- (ii) State three problems which might arise from such a change in the level of activity. (3 marks)
- (b) Biashara Ltd. uses standard costing. The following information relates to actual results for the period ended 30 April 2019:

Units produced	7,200
	Sh.
Materials used (420kgs)	8,450
Labour costs (9,100 hours)	35,280
Various overheads	34,200
Fixed costs	28,500
Direct material price variance	370 (favourable)
Direct material usage variance	252 (favourable)
Direct labour rate variance	1,120 (favourable)
Direct labour efficiency variance	1,040 (favourable)
Variable overhead expenditure variance	2,350 (adverse)
Variance overhead efficiency variance	910 (favourable)
Fixed overhead variance	500 (adverse)

#### Additional information:

- The standard cost card and the budget for the period were misplaced and could not be recovered.
- The accountant recalls that the budgeted output was 7,000 units.

#### Required:

Using variance analysis, derive the following:

- (i) Standard cost card for the period ended 30 April 2019. (5 marks)
- (ii) Budget for the period ended 30 April 2019. (5 marks)

**(Total: 20 marks)**

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