



**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:

- A store ledger account for the month of January 2020 using first in first out (FIFO) method of inventory valuation. (10 marks)
 - 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 spoilt 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 |
| Variable production cost per unit: | | | |
| Raw materials | 70 | 155 | 110 |
| Labour | 24 | 44 | 32 |
| Overheads | 56 | 98 | 75 |

Additional information:

- The total fixed production cost for the three products amounted to Sh.400,000.
- Labour hours are currently limited to 25,000 hours paid at an hourly rate of Sh.8 during the production period.
- 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)

$Y = a + bX$
 $Y = 41000000 + 1500X$
 $\frac{41000000}{3}$

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 |
| Total | <u>92</u> |

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: | Units |
|---|--------------|
| Opening work-in-progress (100% complete, apart from Process 2 conversion costs which were 50% complete) | 1,200 |
| Transfers from Process 1 | 112,000 |
| Completed output | 105,400 |
| Closing work-in-progress (100% complete apart from Process 2 conversion costs which were 75% complete) | 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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