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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 Sh.** | **B Sh.** | **C Sh.** |
|---|---|---|---|
| Selling price per unit | 250 | 320 | 460 |
| **Production cost per unit:** | | | |
| Variable overheads | 16 | 20 | 28 |
| Installation labour | 24 | 32 | 44 |
| Manufacturing labour | 40 | 55 | 70 |
| Raw materials | 70 | 110 | 155 |

**Additional information:**

1. 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.
2. Fixed costs for the production period are Sh.450,000.
3. 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:**

1. Inventory of finished goods at the end of every month is to be equal to 25% of sales estimate for the next month.
2. On 1 January 2020, there were 2,700 units of the product on hand.
3. There is no work-in-progress at the end of any month.
4. The selling price per unit was estimated to be Sh.450 per unit.
5. Each unit of the product requires two types of materials in the following quantities:
   Material A: 4 Kgs.
   Material B: 5 Kgs.
6. 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: 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 Quantity (Units) | Purchases Unit price Sh. | Sales Quantity (Units) | Sales 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:**

1. The opening inventory of product BT on 1 January 2020 comprised of 9,500 units purchased at a cost of Sh.135 per unit.
2. On 9 January 2020, the company reported a shortage of 300 units.
3. 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

- decision making
- projection

(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:

| | Product | | |
|---|---|---|---|
| **Details:** | 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:**
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)**

$Y=a+bX$
$Y=400\,000+180X$
$\frac{400\,000}{3}=$

## 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** | **92** |

**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)**

- variable
fixed
- Semi variable

## 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 | 1,200 |
| (100% complete, apart from Process 2 conversion costs which were 50% complete) | |
| Transfers from Process 1 | 112,000 |
| Completed output | 105,400 |
| Closing work-in-progress | 1,600 |
| (100% complete apart from Process 2 conversion costs which were 75% complete) | |

**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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**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. |
|---|---|---|
| **Balances at the beginning of the month:** | | |
| 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 |
| **Transactions during the month:** | | |
| 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 |

| | Sh. |
|---|---|
| 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:

| | Sh. "000" |
|---|---|
| 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 | 6,400 |
| | 70,400 |

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:

| | Department | | | | |
|---|---|---|---|---|---|
| | A | B | C | X | Y |
| 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:

| | | Job 123 | Job 124 |
|---|---|---|---|
| Direct materials (Sh.) | | 15,400 | 10,800 |
| | | **Hours** | **Hours** |
| 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:

| Process | Output (Tons) | Cost (Sh. "000") |
|---|---|---|
| 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:

| | Sh. |
|---|---|
| Direct materials: $M_1$ (2 Kgs at Sh.20 each) | 40 |
| Direct materials: $M_2$ (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:

| Month: | January | February | March | April | May | June |
|---|---|---|---|---|---|---|
| Quantity (Units) | 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 Sh. | House Sh. | Office 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:**

1. Direct labour costs are Sh.14 per hour.
2. Production overheads are absorbed on a material cost percentage basis.
3. The machine rate for the period under consideration is Sh.56 per machine hour.
4. 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 | 460 | 82 | 640 |
| | | 650 | 115 | 950 |

**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:**
1. During the month of April 2019, 150,000 units were completed and transferred to process II.
2. Closing inventory amounted to 100,000 units with the following degrees of completion:
   Materials 100%
   Labour 50%
   Overheads 40%
3. Due to the nature of the production process, no losses are anticipated.
4. 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 | 169,200 | 176,400 | 183,600 |
| **Total cost** | **661,600** | **719,200** | **776,800** |

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:**

1. The standard cost card and the budget for the period were misplaced and could not be recovered.
2. 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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**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 | (29,433.6) |
| Operating profit | 9,811.2 |

| **Product "13C"** | |
|---|---|
| Sales (71,175 units) | 142,350 |
| Fixed costs | (79,716) |
| Variable costs | (42,705) |
| Operating profit | 19,929 |

**Required:**

(i) Determine the break-even point of "meko" and "13C" in both units and shillings. (6 marks)

(ii) Given that customers refill "meko" three times for every two times they refill "13C", compute the composite unit contribution margin. (4 marks)

(iii) 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 | | 100 |
| 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 | 32 |
| Total cost | | 62 |

**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:**

1. 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.
2. 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:**

(i) Using the high-low method, estimate the fixed and variable components of admission costs. (4 marks)

(ii) 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)

(iii) 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 |
| | **Sh.** |
| 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:**

(i) Compute the company's predetermined overhead absorption rate for the year. (3 marks)

(ii) Compute under-applied or over-applied overhead cost for the year. (4 marks)

(iii) 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:

| | Units |
|---|---|
| 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" |
|---|---|
| **Production departments** | |
| X | 2,500 |
| Y | 2,000 |
| Z | 1,500 |
| **Service departments** | |
| A | 1,000 |
| B | 780 |
| **Total** | 7,780 |

**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)**

## 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 | |
| | 249,520 | 249,520 |

**Additional information:**

1. During the period, total sales amounted to Sh.375,290.
2. Total purchases, wages and overheads amounted to Sh.292,860.
3. 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.
4. 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 | 49,700 | 29,680 |

**Statement of financial position extracts:**

| | ABC Ltd. Sh. "000" | XYZ Ltd. Sh. "000" |
|---|---|---|
| Non-current assets | 142,000 | 92,000 |
| **Current assets:** | | |
| 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 | Actual |
|---|---|---|
| | Units | 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:**

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

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

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

**Required:**

(i) Process 1 account. (4 marks)

(ii) Process 2 account. (6 marks)

(iii) 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) | 35,000 |
| | 285,000 |

**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. |
|---|---|
| **Opening Stock:** | |
| 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 |
| **Closing stock:** | |
| 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:**

1. Factory overheads are absorbed at 60% of direct wages.
2. 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) | 175,000 |
| Total cost | 1,400,000 |

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 | 367,500 |
| Total | 1,225,000 |

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 | 50,000 | 140,000 | 5 | 5 | 0 | 30 |
| Total | 62,000 | 175,000 | 125 | 125 | 75 | 750 |

**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)

(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) | 100,000 | 120,000 | 80,000 |
| | **Sh. "000"** | **Sh. "000"** | **Sh. "000"** |
| Revenue | 1,500 | 1,440 | 880 |
| **Costs:** | | | |
| Material | 500 | 480 | 240 |
| Labour | 400 | 320 | 160 |
| Overhead | 650 | 600 | 360 |
| Total cost | 1550 | 1400 | 760 |
| Profit or (loss) | (50) | 40 | 120 |

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:**

1. All units produced are sold.
2. 25% of the labour cost for each product is fixed in nature.
3. 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.
4. Ceasing production of Product A would eliminate the fixed labour charge associated with it and one sixth ($^1/_6$) of the fixed administration overheads apportioned to Product A.
5. 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:**

1. 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 |

2. 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
3. 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)

**(Total: 20 marks)**

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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 months)

(ii) The fixed overheads expenditure variance. (2 months)

(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:**

(i) Assuming the above mix of training hours, advise the management on total number of hours required to break-even. (5 marks)

(ii) The contribution from each subject and in total at break-even. (4 marks)

(iii) Total hours required to earn a profit of Sh.1,324,000. (3 marks)

**(Total: 20 marks)**

**QUESTION THREE**

(a) Outline four causes of labour turnover in an organisation. (4 marks)

(b) Describe four functions of a budget committee. (4 marks)

(c) 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 | 80 |
| | 200 |

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 | 160 |
| | 280 |

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

Fixed production costs will not be affected.

**Required:**

(i) Advise the management on whether to accept the special order under Problem 1. (6 marks)

(ii) 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)**

## 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 ¾ 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 |
| **Cost per batch** | | | | |
| 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 | 68,000 | Materials movements |
| | 500,000 | |

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 | 24,000 | 27,000 | 33,000 | 28,000 |
| Selling and administration expenses: | | | | |
| Selling expenses | 7,000 | 8,400 | 11,200 | 7,300 |
| Administration expenses | 5,500 | 5,900 | 6,900 | 5,200 |
| Total selling and administration expenses | 12,500 | 14,300 | 18,100 | 12,500 |
| Net operating income | 11,500 | 12,700 | 14,900 | 15,500 |

**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 totaled 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)**

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# 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) Tarvoi 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 | Per unit | Percentage of sales |
|---|---|---|---|
| | Sh. | Sh. | |
| Sales (20,000 units) | 1,200,000 | 60 | 100% |
| Variable expenses | 900,000 | 45 | ? |
| Contribution margin | 300,000 | 15 | ? |
| Fixed expenses | (240,000) | | |
| Net income | 60,000 | | |

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)**

## 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 Date | Receipts | Issues Date | Issues |
|---|---|---|---|
| 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:**

1. Materials in store as at 30 June 2015 were 2,000 units at Sh.50.
2. On 9 July 2015, part of the materials issued on 5 July 2015 amounting to 200 units were returned.
3. On 15 July 2015, 100 units were returned to Kena Stores.
4. On 21 July 2015, there was materials wastage of 500 units.
5. Returns from a June 2015 issue of 100 units at Sh.45 was received on 25 July 2015.
6. On 28 July 2015, there was shortage of stock of 20 units.
7. 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 |
| | | 286,000 |

**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:**

1. The budgeted sales for the month of October 2015 were 38,000 units.
2. 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 |

3. 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:**

1. Maximum operating hours for machine M1 is 1,700 hours while for machine M2 is 1,920 hours.
2. Maximum quantity of metal available amounts to 17,000 metres.
3. Each stand requires 2 metres of metal.
4. The cost of metal amounts to Sh.50 per metre.
5. Variable machine overheads for machine M1 and machine M2 are Sh.500 per hour and Sh.600 per hour respectively.
6. 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

## 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 manufacturers 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 |
| | 1700 |

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:**

1. The product will retail at a price of Sh.500 per litre.
2. 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 |

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

**Required:**
(a) (i) Break-even point in units and revenue. (4 marks)
(ii) Margin of safety in units. (2 marks)
(iii) Current budgeted profit. (2 marks)

(b) 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:
(i) Cost per unit

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

(ii) Each unit of Alpha requires 0.5 hours in crushing department.
(iii) The customer has offered a price of Sh.1500 per unit of Alpha.
(iv) 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)

(c) 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)**

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