CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

# CA 1.1: FINANCIAL ACCOUNTING

MONDAY 11 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

## INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: One (1) compulsory scenario question plus Four (4) scenario questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A**

**Attempt all ten (10) multiple choice questions**

**<u>QUESTIONS ONE</u>**

Each of the following questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

1.1 Which one of the following is **NOT** an advantage of cash accounting, generally used by public sector organization?

A. Measures the economic value of goods and services earned and consumed

B. Activities undertaken must be within the limits of available funds

C. It is objective because expenditure recorded is based on actual activities

D. Demonstrates an organization's effective management of finances

(2 marks)

1.2 If accrued insurance of K600 was incorrectly treated as prepaid insurance in the books of Mutonga limited, what is the effect on net profit, asset and/or liabilities?

A. Profit overstated by K600 and assets overstated by K600

B. Profit understated by K600 and assets understated by K600

C. Profit overstated by K1,200 and assets overstated by K1,200

D. Profit understated by K1,200 and assets understated by K1,200

(2 marks)

1.3 The books of prime entry are?

A. A listing of all account balances from the ledgers

B. A diary to record the purchases and sales of non-current assets

C. Books in which transactions are first recorded from source documents

D. An accounting record which summarizes the financial affairs of a business

(2 marks)

1.4 Which of the following books of prime entry is used to record the sales of non-current assets on credit?

A. The general ledger

B. The general journal

C. The sales day book

D. The cash book (2 marks)

1.5 Pandamano's electricity account showed a prepayment of K1,200 and an accrual of K800 on 1 January 2022. The posting to the profit or loss account for the year ended 31 December 2022 was K24,500. The account shows a prepayment of K700 and an accrual of K650 on 31 December 2022.

How much had been paid for electricity during the year ending 31 December 2022?

A. K24,050
B. K24,150
C. K24,500
D. K24,850

(2 marks)

1.6 Audited financial statements are mandatory by law for?

1. Sole traders
2. Partnerships
3. Large limited companies
4. Not for profit Organization

The statement above is **TRUE** for

A. 1,2,3 and 4
B. 2 and 3 only
C. 3 only
D. 3 and 4 only

(2 marks)

1.7 The trial balance is:

A. An account showing ledger balances
B. A statement listing all debit and credit balances
C. A ledger indicating debit and credit balances brought forward
D. All the above

(2 marks)

1.8 In a given accounting period, Twiza Co. had the following transactions on his Trade Receivables Control Account:

Sales, K25,000
Cash received, K10,000
Irrecoverable debts written-off, K400
Balance carried forward, K19,000

What was Twiza’s opening balance for the period?

A. K4,400 Dr

B. K4,400 CR

C. K3,600 Dr

D. K4,000 Dr

(2 marks)

1.9 Muleli Enterprises billed its customer, Abigail, an invoice of K23,500, VAT inclusive, for the supply of office stationery. The terms were 2.6% within 14 days.

How much settlement discount was Abigail given on his invoice if he decided to settle her account within the discount period?

A. K817.80

B. K705.00

C. K592.20

D. K611.00

(2 marks)

1.10 Lwando, a sole trader had opening inventory of K15,200 on 1 April 2022. His cost of goods sold figure on 31 March 2023 was K46,000. Closing inventory as at 31 March,2023 was K13,000. There were some purchases returns during the year amounting to K5,200.

What were the purchases for the year?

A. K59,000

B. K43,800

C. K49,000

D. K38,600 (2 marks)

**[Total: 20 Marks]**

**SECTION B**

**Question TWO (2) in this section is compulsory and must be attempted. Then attempt any THREE (3) questions from the remaining FOUR (4) questions.**

**<u>QUESTION TWO</u> – (COMPULSORY)**

Muzoola is a sole trader who operates a hardware business in Choma. He employs an inexperienced bookkeeper and so a scanty record of business transactions has been kept. Muzoola sells both on cash and credit basis. His accounting period ends 31 March every year. His available records are as provided below:

**Cash and bank account summaries:**

| **Receipts:** | **Cash K'000** | **Bank K'000** |
|---|---|---|
| Cash sales | 328,000 | - |
| Trade receivables | 60,000 | 1,312,000 |
| Cash banked | - | 29,200 |
| **Total receipts** | 388,000 | 1,341,200 |
| | | |
| **Payments:** | | |
| Drawings | 233,100 | |
| Insurance | 53,600 | |
| Cash banked | 29,200 | |
| Printing and stationery | 6,000 | |
| Motor vehicles expenses | 64,500 | |
| Rent and rates | | 27,000 |
| Wages and salaries | | 315,000 |
| Trade payables | | 1,011,200 |
| Sundry expenses | | 29,000 |
| Office expenses | | 20,000 |
| Loan interest paid | | 30,900 |
| Delivery expenses | | 9,800 |
| **Total payments** | 386,400 | 1,442,900 |

**The following additional information is relevant:**

1. Some of the balances at the beginning and at the end of the year ending 31 March 2023.

| | **31 March 2023 K'000** | **31 March 2022 K'000** |
|---|---|---|
| Bank | ? | 171,200 |
| Cash | ? | 3,000 |
| Inventory | 175,200 | 90,000 |
| Trade receivables | 333,600 | 308,000 |
| Trade payables | 188,500 | 161,000 |
| Loan | 240,000 | 240,000 |
| Buildings | ? | 251,200 |

| | | |
|---|---|---|
| Motor vehicles | ? | 91,600 |
| Rent and rates owing | 6,600 | - |
| Office expenses prepaid | 5,000 | - |
| Loan interest owing | 5,100 | - |

2. There were discounts received from suppliers amounting to K35.4 million and discounts allowed to customers to the value of K40 million.

3. Hardware products to the value of K50.2 million were taken out of the business and used in Muzoola's private house construction.

4. Irrecoverable debts of K7 million were written off during the year ended 31 March 2023.

5. Depreciation of non-current assets is provided for annually at 20% per annum based on reducing balance method.

**Required:**

(a) Prepare Muzoola's Statement of profit or loss for the year ending 31 March 2023.
(12 marks)

(b) Prepare Muzoola's Statement of financial position as at 31 March 2023.
(8 marks)

**[Total: 20 Marks]**

## QUESTION THREE

(a) The following information relates to activities of Vubwi Ltd, a firm incorporated in Eastern Zambia:

**Statement of Financial Position as at 31 December**

| **Assets:** | **2022 K'000** | **2021 K'000** |
|---|---|---|
| **Non-current assets:** | 1,295 | 810 |
| **Current assets:** | | |
| Inventory | 1,500 | 500 |
| Receivables | 2,680 | 890 |
| Bank | - | |
| 740 | | |
| **Total assets** | **5,475** | **2,940** |
| **Equity and liabilities:** | | |
| Share capital | 600 | 400 |
| Retained earnings | 1,625 | 600 |
| **Total equity** | **2,225** | **1,000** |
| **Non-current liabilities:** | | |
| 10% Debentures | 160 | 360 |

| | | |
|---|---|---|
| **Current liabilities:** | | |
| Bank overdraft | 1,810 | - |
| Payables | 1,000 | 680 |
| Taxation | 280 | |
| 900 | | |
| **Total liabilities** | **3,250** | **1,940** |
| **Total equity and liabilities** | **5,475** | **2,940** |

**Additional information:**

(i) The Statement of profit or loss for the year ended 31 December 2021 shows the following:

| | K000 |
|---|---|
| Operating profit | 1,531 |
| Interest payable | (26) |
| Profit before taxation | 1,505 |
| Taxation | (480) |
| | 1,025 |

(ii) Payables consist of trade payables and accrued interest. The accrued interest as at 31 December 2022 was K45,000 and 2021 was K80,000.

(iii) Profit before taxation had been arrived at after charging depreciation of K395,000 on non-current assets.

(iv) During the year, non-current assets with a carrying amount of K200,000 were sold for K190,000.

**Required**:

Prepare a Statement of Cash flows for Vubwi Ltd for the year ended 31 December 2021, in accordance with IAS 7: Statement of cash flows. (15 marks)

(b) From the figures in your solution to (a) above, make brief comments on Vubwi Ltd.'s:

(i) Net cash flow from operating activities,
(ii) Net cash flow from investing activities and
(iii) Net increase or decrease in cash and cash equivalent. (3 marks)

(c) State any two (2) benefits Vubwi Ltd may derive from preparing a Statement of cash flows.

**[Total: 20 Marks]**

**QUESTION FOUR**

(a) The Finance Director sent his assistant to a workshop where presenters discussed a number of issues. The assistant seeks your clarification by asking the following questions:

(i) Explain the 'fundamental qualitative characteristics' of *relevance* and *faithful representation* of financial information as stated in the IASBs *Conceptual Framework*. (2 marks)

(ii) Explain the criteria for recognizing and de-recognizing assets and liabilities according to the IASBs *Conceptual Framework*. (2 marks)

(iii) Explain the term 'substance of a transaction over its legal form' giving an illustrative example. (2 marks)

(iv) Explain two (2) characteristics of the cash basis of accounting (2 marks)

(v) Discuss two (2) merits and two (2) demerits of the cash basis of accounting.

(4 marks)

(b) IAS 2 states that inventory should be valued at 'the lower of cost or net realizable value'.

(i) Outline the circumstances in which the net realizable value is likely to be less than the cost of inventory (2 marks)

(ii) Deekay owns a shop in which he sells hardware. Inventory count for pipes was done on the last day of the month and that of roofing sheets on 4 January 2023. The following are activities associated with each type of inventory:

***Pavers:*** There were 1200 concrete pavers with a cost of K5.00 each. During the months of January and February 2023 the pavers were sold at K4.00 each, and the workers were given a commission of 10% on total sales.

***Roofing Sheets:*** The value of inventory was K24,000 on 4 January 2023. Between 31 December 2022 and 4 January 2023 roofing sheets were acquired at a cost of K3,600 and sales of roofing sheets amounted to K7,200. Deekay adds a markup on cost of 20% to arrive at the selling price for roofing sheets.

**Required:**

Calculate the total value of inventory that Deekay would report in the statement of financial position for both pavers and roofing sheets. (6 marks)

**[Total: 20 Marks]**

**QUESTION FIVE**

Mukupa Co. is a trader of Timber and Timber products operating in major towns of Zambia. The company sells its products mainly on credit and obtains its supplies on credit as well.

On 31 March 2023, the Senior Accountant was reviewing the accounts and discovered that the control accounts do not agree with their respective ledger balances. The control account balances at 1 April 2022 were as follows:

| | | |
|---|---|---|
| Payables ledger control account: | Dr | nil |
| | Cr | K220,000 |
| Receivables ledger control account: | Dr | K877,680 |
| | Cr | nil |

The balances per listing from the payables and receivables ledgers at 1 April 2022 were as follows:

| | | |
|---|---|---|
| List of payables balance total: | Dr | K7,340 |
| | Cr | K212,560 |
| List of receivables balance total: | Dr | K829,340 |
| | Cr | K8,900 |

**Upon investigation, the following discoveries were made.**

1. A transposition error occurred on a personal supplier account in which a payment of K3,936 was posted as K2,596.

2. A sales daybook had been overcast by K3,600.

3. The purchases daybook had been added incorrectly, the total of K3,160 being too much.

4. A debt of K15,120 was written off receivables, but no record was made by Mukupa Company.

5. Purchases of K7,600 had not been posted to a suppliers account in the payables ledger.

6. Goods returned to a supplier amounting to K2,680 had been posted to the personal account, but not the control account.

7. A credit note sent to a customer amounting to K2,160 was entered on the wrong side of the customer's account.

8. Contra entries amounting to K28,980 against amounts owed to Mukupa Co. were correctly recorded in payables control account and both the payables ledger and receivables ledger but entered on the debit side of the receivables control account.

9. Returns inwards of K8,100 had been recorded in the receivables ledger and receivables control account as K10,080.

10. Discounts received of K2,680 had been posted to the personal accounts concerned but not to the control account.

11. Cash discounts allowed of K270 to one customer had not been recorded in the accounting system.

**Required:**

(a) Make necessary corrections to the payables control account and the receivables control account. (10 marks)

(b) Make necessary corrections to the payables' ledger balance and the receivables' ledger balance. (10 marks)

**[Total: 20 Marks]**

## QUESTION SIX

In theory, entries appearing in a business bank statement should exactly be the same as those in the business cash book. However, in practice, it is rare that balances from the two records are usually the same. A bank reconciliation statement matches the cash balance on a company's cash book to the corresponding amount on its bank statement. Reconciling the two accounts helps determine if accounting changes are needed. Bank reconciliations are completed at regular intervals to ensure that the company's cash records are accurate. They also help detect fraud and any cash manipulations. Further, the system helps to identify amounts that were received or charged without any notification from the Bank.

The trial balance of Hakunakulala, a sole trader, failed to agree. The credit exceeded the debit by K5,760. The balance was placed in a suspense account. After a review, the following errors were discovered:

1. The total of the purchases account was under cast by K2,000

2. Cash sales of K2,470 were recorded by debiting sales with K2,470 and crediting cash with K6,430.

3. Mr. Musonda, whose debt was the subject of a specific provision for irrecoverable debt, paid his account of K1,080 by cheque in full. The only entry made for this transaction was to credit receivables with K1,080.

4. An invoice for rates of K2,250 was found behind the bookkeeper's desk. The invoice had not been accounted for.

5. The total of the sales returns day book was overcast by K1,280.

6. Discounts received of K840 were recorded by crediting receivables and debiting discounts received.

7. A new piece of machinery valued at K24,300 was written-off to repairs in error. The depreciation policy of Hakunakulala is to depreciate machinery by 10% on straight line

basis. The sole trader charges a full year's depreciation in the year of purchase and none in the year of sale.

**Required:**

(a) Prepare journal entries, with the appropriate narratives, necessary to correct the above errors. (8 marks)

(b) Prepare a Suspense Account. (2 marks)

(c) Discuss any four (4) features (such as nature, purpose, timing etc.) of a bank reconciliation statement. (4 marks)

(d) Identify and explain two (2) common reasons for the differences between the cash book balance and the bank statement balance (2 marks)

(e) Identify and explain four (4) errors which do not affect the suspense account. (4 marks)

**[Total: 20 Marks]**

## END OF PAPER

## CA 1.1 FINANCIAL ACCOUNTING SUGGESTED SOLUTIONS

### SOLUTION ONE

| | |
|---|---|
| 1.1 | A |
| 1.2 | C |
| 1.3 | C |
| 1.4 | B |
| 1.5 | B |
| 1.6 | C |
| 1.7 | B |
| 1.8 | A |
| 1.9 | D |
| 1.10 | C |

**SOLUTION TWO**

**a) Muzoola's statement of profit or loss for the year ended 31 March 2023**

| | **K'000** | **K'000** |
|---|---|---|
| Sales (w1) | | 1,772,600 |
| Less cost of sales: | | |
| Opening Inventory | 90,000 | |
| Purchases | 1,023,900 | |
| | 1,113,900 | |
| Closing Inventory | (175,200) | |
| | | (938,700) |
| Gross profit | | 833,900 |
| Add discount received | | 35,400 |
| | | 869,300 |
| **Less expenses:** | | |
| Insurance | 53,600 | |
| Printing and stationery | 6,000 | |
| Motor vehicle expenses | 64,500 | |
| Rent and rates (27,000+6,600) | 33,600 | |
| Wages and salaries | 315,000 | |
| Laundry expenses | 29,000 | |
| Office expenses (20,000-5,000) | 15,000 | |
| Loan interest (30,900+5,100) | 36,000 | |
| Delivery expenses | 9,800 | |
| Discount allowed | 40,000 | |
| Irrecoverable debts | 7,000 | |
| Depreciation (w3); Building (20% x 251,200) | 50,240 | |
| Motor vehicle (20% x 91,600) | 18,320 | (678,060) |
| **Net profit** | | **191,240** |

**b) Muzoola's statement of financial position as at 31 March 2023**

**Assets**

| | **Cost** | **Accumulated Depreciation** | **Carrying amount** |
|---|---|---|---|
| **Non-current assets:** | **K'000** | **K'000** | **K'000** |
| Buildings | 251,200 | 50,240 | 200,960 |
| Motor vehicles | 91,600 | 18,320 | 73,280 |
| | 342,800 | 68,560 | 274,240 |
| | | | |
| **Current Assets:** | | | |
| Inventory | | 175,200 | |
| Trade receivables | | 333,600 | |
| Bank | | 69,500 | |
| Cash | | 4,600 | |
| Office expenses prepaid | | 5,000 | |
| | | | 587,900 |
| **Total assets** | | | **862,140** |

**Capital and liabilities:**

| | | |
|---|---|---|
| Opening capital (w4) | | 514,000 |
| Add net profit | | 191,240 |
| Less drawings(w5) | | (283,300) |
| Closing capital | | 421,940 |
| | | |
| **Non-current liabilities:** | | |
| Loan | | 240,000 |
| | | |
| **Current liabilities:** | | |
| Trade payables | 188,500 | |
| Rent and rates owing | 6,600 | |
| Interest owing | 5,100 | |
| | | 200,200 |
| **Total capital and liabilities** | | **862,140** |

**WORKINGS:**

1. Calculating total sales:

i) **RECEIVABLES A/C**

| | **K'000** | | **K'000** |
|---|---|---|---|
| Balance b/f | 308,000 | Discounts Allowed | 40,000 |
| Sales | 1,444,600 | irrecoverable debts | 7,000 |
| | | Bank | 1,312,000 |
| | | Cash | 60,000 |
| | | Balance c/d | 333,600 |
| | 1,752,600 | | 1,752,600 |
| Balance b/f | | | |

ii)

| | K'000 |
|---|---|
| Cash Sales | K328,000 |
| credit sales | 1,444,600 |
| Total sales | K1,772,600 |

2. Calculating credit purchases:

**PAYABLES CONTROL ACCOUNT**

| | **K'000** | | **K'000** |
|---|---|---|---|
| Bank | 1,011,200 | Balance b/f | 161,000 |
| Discounts Received | 35,400 | Purchases | 1,074,100 |
| Balance c/d | 188,500 | | |
| | 1,235,100 | | 1,235,100 |

Net purchases =1,023,900 (1,074,100-50,200, drawings)

3. Depreciation of non-current assets:
   Buildings (20%*251,200) = 50,240

Motor vehicles (20%*91,600) = 18,320

4. Calculation of opening capital:

| | K'000 | K'000 |
|---|---|---|
| Assets | | |
| buildings | 251,200 | |
| Motor vehicles | 91,600 | |
| Inventory | 90,000 | |
| Trade receivables | 308,000 | |
| Bank | 171,200 | |
| Cash | 3,000 | |
| Liabilities | | |
| Loan | | 240,000 |
| Trade Payables | | 161,000 |
| Opening capital | | 514,000 |
| | 915,000 | 915,000 |

**5. Total drawings:**

| | |
|---|---|
| Cash drawings | 233,100 |
| Drawings of goods | 50,200 |
| Total drawings | 283,300 |

**SOLUTION THREE**

(a) **Vubwi Ltd**

**Statement of cash flows for the year ended 31 December 2022**

| | K'000 | K'000 |
|---|---|---|
| *Cash flows from operating activities* | | |
| Profit before interest and tax | 1,531 | |
| Adjustments for: | | |
| Depreciation | 395 | |
| Loss on sale of tangible non-current asset (200 - 190) | 10 | |
| Increase in inventory (1,500 – 500) | (1,000) | |
| Increase in trade receivables (2,680 – 890) | (1,790) | |
| Increase in trade payables (955 – 600) | 355 | |
| Cash used in operations | (499) | |
| Interest paid (W1) | (61) | |
| Tax paid (W2) | (1,100) | |
| ***Net cash flow from operating activities*** | | ***(1,660)*** |
| *Cash flow from investing activities* | | |
| Purchase of non-current assets (W3) | (1,080) | |
| Proceeds from sale of tangible non-current asset | 190 | |
| ***Net cash used in investing activities*** | | ***(890)*** |
| *Cash flows from financing activities* | | |
| Proceeds from issuing shares (600 – 400) | 200 | |
| Repayment of debentures (360 – 160) | (200) | |
| ***Net cash used in financing activities*** | | ***0*** |
| Net decrease in cash and cash equivalents | | (2,550) |
| **Cash and cash equivalents at the beginning of the period** | | **740** |
| **Cash and cash equivalents at the end of the period** | | **(1,810)** |

**Workings:**

**1. Interest**

| | K'000 | | K'000 |
|---|---|---|---|
| Interest paid (bal. figure) | 61 | Bal /d | 80 |
| Bal c/d | 45 | Profit & Loss | 26 |
| | 106 | | 106 |

**2. Tax**

| | K'000 | | K'000 |
|---|---|---|---|
| Tax paid (bal. figure) | 1,100 | Bal b/d | 900 |
| Bal c/d | 280 | Profit & Loss | 480 |
| | 1,380 | | 1,380 |

**3. Non-current assets**

| | K'000 | | K'000 |
|---|---|---|---|
| Bal b/d | 810 | Disposal | 200 |
| Purchases | 1,080 | Depreciation | 395 |
| | | Bal c/d | 1,295 |
| | 1,890 | | 1,890 |

**4. Trade Payables**

| | K'000 | | K'000 |
|---|---|---|---|
| Bal. fig. (1,000 – 45) | 955 | Bal b/d (680 – 80) | 600 |
| | | Purchases (bal. fig.) | 355 |
| | 955 | | 955 |

(b) **Brief comments on following elements of Vubwi Ltd's Cash flow statement**

(i) Net cash flow from operating activities: Vubwi Ltd had a negative cash flow of K1.67 million from its operating activities. This means that the entity's operations for the year were adverse.

(ii) Net cash used in investing activities: Vubwi Ltd used K0.89 million to invest in non-current assets which gives potential to the firm for future income generation as a result of using these assets.

(iii) Net decrease in cash and cash equivalents: Vubwi Ltd's net impact of its operations in the year ended 31 December 2022 is that it used-up K2.6 million of its cash and cash equivalent; resulting in bank overdraft of K1.8 million from the K074 million sound balance at the beginning of the year.

(c) **Benefits of preparing Statement of cash flows by Vubwi Ltd**

(i) Verifying Profitability and Liquidity Positions.

(ii) Verifying Capital Cash Balance.

(iii) Effective Cash Management.

(iv) Appropriate Planning and Coordination.

(v) Superiority over Accrual Basis of Accounting.

(vi) Ability to assess survival of the business.

**SOLUTION FOUR**

(a) Fundamental characteristics are those that are critical to determining the usefulness of financial statements. They include relevance and faithful representation. Information is said to be relevant if it helps users to evaluate past, present, and future events. In other words, such information has predictive and confirmatory value. (IASB *Conceptual Framework*)

Faithful representation is the characteristic that information in financial statements represents what it purports to represent. In other words, information must be complete, neutral and free from error. It must reflect the economic substance of the events (IASB *Conceptual Framework*)

(i) The recognition criteria for elements of financial statements is simply meeting the definition of an asset, a liability, income or an expense as defined in the IASB *Conceptual Framework*. The determinant of whether an asset should be derecognized is that the entity has lost control of all or part of the asset. A liability is derecognized when the entity no longer has a present obligation for all or part of the liability that was earlier recognized. (IASB *Conceptual Framework*)

(ii) The substance of the transaction is the economic reality of it, as contrasted with the legal status of it. A hire purchases transaction best illustrates the principle of substance of a transaction: the buyer of an asset does not legally own the asset until he pays the final instalment. Despite that the buyer does not have documents of ownership, he could still enjoy the full benefits of using the asset because it is physically transferred to him. (IASB *Conceptual Framework*)

(iii) There are no receivables because sales are recognized only when cash is received. Similarly, there are no payables because purchases are recognized only when cash is actually paid. Inventory count is done without adjusting for opening inventory as the latter is never kept as a useful record. There are no non-current assets as everything is treated as current asset, and there are no current or non-current liabilities.

(iv) Advantages of cash accounting include:

1. Financial statements are easier to prepare and understand
2. It shows how the organization has managed its finances
3. Activities must be carried out within the constraint of available funding
4. Only actual activities are recorded so that there is no subjectivity.

Disadvantages of cash accounting include

1. Cash is the only focus, whereas reality embraces a number of different aspects of business.
2. Assets and liabilities other than cash are ignored
3. The true worth of an organization is not measured
4. Financial statements are incomplete and may be misleading.

(b) Calculations of inventory:

(i) Circumstances in which NRV of inventory is likely to be lower than cost are:

1. Where there is an increase in cost or a fall in selling price
2. Where inventory is physically deteriorating
3. Where there is obsolescence
4. Where a decision has been made to manufacture and sale a product at a loss in order to capture a market. A Deliberate marketing strategy is in place.
5. Errors exist in accounting for production and or purchasing

(ii) Pavers:

| | | | |
|---|---|---|---|
| Cost 1 200 x K5.00 | | = | K6,000 |
| Net realizable value: Sales 1,200 x K4.00 | | = | K4,800 |
| Commission 10% x 4,800 | | | (K480) |
| NRV | | | K4,320 |

The lower, NRV will be included in inventory value at the end of the year.

Roofing sheets:

| | | | | |
|---|---|---|---|---|
| Purchases | | | = | K3,600 |
| Sales | = | K7,200 | | |
| Mark up 20/120 x 7 200 | | K(1,200) | | |
| Cost | | | | K6,000 |

Inventory adjustment to the amount that existed on 31 December 2022

24,000 + 6,000 - 3,600 = K26,400

*Therefore, total inventory valuation at the end of the year was*

Pavers, K4,320 + Roofing sheets, K26,400 = K30,720

**SOLUTION FIVE**

(a)

**Payables ledger control account**

| | K | | K |
|---|---|---|---|
| Purchases day book overstated (note 3) | 3,160 | balance b/f | 220,000 |
| Returns outwards omitted (note 6) | 2,680 | | |
| Discounts received (note 10) | 2,680 | | |
| balance c/d | 211,480 | | |
| | **220,000** | | **220,000** |
| | | Balance b/d | 211,480 |

**Receivables ledger control account**

| | K | | |
|---|---|---|---|
| Balance b/f | 877,680 | Sales day book overstated (note 2) | 3,600 |
| Returns inwards overstated | 1,980 | Irrecoverable debt w/o (note 4) | 15,120 |
| | | Discounts allowed (note 11) | 270 |
| | | contra entry (note 8) | 57,960 |
| | | Balance c/d | 802,710 |
| | **879,660** | | **879,660** |
| Balance b/d | 802,710 | | |

(b)

| Corrected list of payables balance: | |
|---|---|
| Net balance b/f before corrections (212,560-7340) | 205,220 |
| less transposition error | -1,340 |
| plus purchases omitted from ledgers | 7,600 |
| Corrected list of payables balance | 211,480 |

| Corrected list of receivables balance: | |
|---|---|
| Net balance b/f before corrections (829,340-8,900) | 820,440 |
| Less irrecoverable debts written off(note 4) | -15,120 |
| Mispost of sales returns (note 7) | -4,320 |
| Returns inwards overstated (note 9) | 1,980 |
| Discounts allowed (Note 11) | -270 |
| Corrected list of balances | 802,710 |

**Explanatory notes:**

1. A payment gets debited to supplier personal account. As amount debited was less (i.e. 2,596) than the correct amount (3,936) a further debit of the difference to be made hence a subtraction from the list of balances of K1,340.
2. This is an error affecting the total of a book of prime entry. Totals from books of prime entry affect control accounts. As total was overcast, receivables control account was equally overstated on debit side. To correct, a credit entry is required of overstated amount of K3,600.
3. Similar to item 2 explanation. The purchases day book total goes to the credit of the payables control account, which is effectively too much and so a debit entry is required in the account to effect a correction.
4. When no record is made by the business owner, it means both the control account and the ledger are lacking the entry. To correct, the receivables control account needs to be credited and the list of receivables balance to be reduced by same amount of K15,120.
5. Purchases of K7,600 were not posted to a supplier's account. This affects the list of payables balance. It was less as a result of the error hence an addition of the amount to the balance is required in order to make a correction.
6. As the goods returned were not posted to the control account, a debit entry to the account is required. The list of payables is not affected.
7. If a credit note to the value of K2,160 was entered on the wrong side of the customer's account, it was debited instead of being credited to a customer's account. The effect is that the credit side is too much by twice the amount involved of K2,160 that is K4,320. To correct, the list of receivables balance to be reduced by the same K4,320.
8. Contra entries require a credit entry in the receivables control account. By debiting, the effect is that the debit entry is twice the amount involved of K28,980, that is K57,960 too much. To correct, a credit entry of K57,960 is required.
9. The error entails both the control account and the list of receivables balance have been over-reduced by the difference K1,980 (K10,080-K8,100). To correct, the control account to be debited by K1,980 and the list of receivables balance to be increased by some amount.
10. Discounts received amounting to K2,680 are missing from the control account hence should be recorded by making a debit entry.
11. A transaction not recorded at all affects both the control account account and the list of receivables. To correct, receivables control account should be credited and the list of receivables reduced by K270.

**SOLUTION SIX**

(a) Journal entries

| | | Debit K | Credit K |
|---|---|---|---|
| 1 | Purchases | 2,000 | |
| | Suspense | | 2,000 |
| | Being purchases under cast | | |
| 2 | Cash | 6,430 | |
| | Cash | 2,470 | |
| | Sales | | 2,470 |
| | Sales | | 2,470 |
| | Suspense | | 3,960 |
| | Being correction cash sales incorrectly recorded | | |
| | **OR** | | |
| | Cash | 8,900 | |
| | Sales | | 4,940 |
| | Suspense | | 3,960 |
| | Being correction cash sales incorrectly recorded | | |
| 3 | Bank | 1,080 | |
| | Suspense | | 1,080 |
| | Being correction of an error of single entry | | |
| | allowance for receivables: SFP | 1,080 | |
| | allowance for receivables: SPL | | 1,080 |
| 4 | Rates | 2,250 | |
| | Accruals | | 2,250 |
| | Being omission of an invoice now corrected | | |
| 5 | Suspense | 1,280 | |
| | Sales returns | | 1,280 |
| | Being overcast sales now corrected | | |
| 6 | Receivables | 840 | |
| | Payables | 840 | |
| | Discount received | | 1,680 |
| | Being correction of discount received wrongly debited | | |
| 7 | Non-current assets | 24,300 | |
| | Repairs | | 24,300 |
| | Depreciation per SPL | 2,430 | |
| | Depreciation per SFP | | 2,430 |
| | Being correction of error of principal and depreciation omitted now corrected | | |

(b) **Suspense Account**

| | K | | K |
|---|---|---|---|
| Balance per question | 5,760 | Purchases | 2,000 |
| Sales returns | 1,280 | Sales | 3,960 |
| | | Bank | 1,080 |
| | **7,040** | | **7,040** |

(c) **Features of bank reconciliation statement**

1. It is prepared periodically depending on the volume of transactions. It could be weekly, monthly or quarterly.
2. It's meant for transactions which affect both bank accounts in the books of the company (cash book) and its bank statements.
3. It is the company which prepares this statement and bank has no role to play in this exercise and the only thing which company needs while preparing this statement is the bank account statement from the bank.

**Starting Point is Important**

1. The starting point is important as far as this statement is concerned because if company starts with balance as per cash book of the company then treatment of various items like interest credited by the bank, cash deposits made in the bank directly, cheques issued but not presented for payment will be different as opposed to that treatment if the starting point is the balance in bank account statement of the company.
2. Unlike financial statements such as statements of financial position and statements of profit or loss account which are compulsory to prepare a bank reconciliation statement is not compulsory as no law requires a company to prepare this statement. This statement is basically prepared for the convenience of the company and also for early fraud detection as the majority of fraud involves bank account and if the company can put check and balance in the bank account then a company can save itself from any major fraud.
3. It is not part of financial statements

(d) **Common explanations for differences between the Cash book balance and the Bank statement balance**

1. **Errors:** There could be errors in calculations or recording of income and payments either by the bank or person handling the cash book.
2. **Bank charges or interest:** The bank might deduct charges or interest on an overdraft or for its sources, which the business may not be aware of until the bank statement is received.
3. **Timing differences**.
    1. There might be some cheques received and paid into bank but which have not been cleared and credited by the bank.
    2. The company might have made payments by cheque which have not yet been presented to the bank and yet cash book adjustments have already occurred.

(e) **Errors which does not affect the suspense account**

1. **Complete omission** – a transaction is not recorded at all.
2. **Error of commission** – an item is entered to the correct side of the wrong account name (there is a debit and a credit here, so the records balance)
3. **Error of principle** – an item is posted to the correct side of the wrong account class or type of account, as when cash paid for plant repairs (expense) is debited to plant account (asset). Errors of principle are really a special case of errors of commission, and once again there is a debit and a credit.
4. **Error of original entry** – an incorrect figure is entered in the records and then posted to the correct account.
5. **Reversal of entries** – the amount is correct, the accounts used are correct, but the account that should have been debited is credited and vice versa.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

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CERTIFICATE IN ACCOUNTANCY

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CA 1.2: BUSINESS STATISTICS

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WEDNESDAY 13 SEPTEMBER 2023

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TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

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**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: One (1) compulsory scenario question.
   Plus Four (4) scenario questions. Attempt any Three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. A mathematical standard formulae book must be provided to you. Request for one if not given by the Invigilator.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A – (COMPULSORY)**

Attempt all ten (10) multiple choice questions

**<u>QUESTION ONE</u>**

Each of the following questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

1.1 Which of the following variables can be classified as continuous data.

A. The number of degree programs at a university.
B. The count of errors made by typist every 5 pages of typed document.
C. The number of customers entering the bank every five minutes.
D. The surface area of television in sets in 50 selected households. (2 marks)

1.2 The values of the variate that divide a set of data into four equal parts after arranging the observations in ascending order of magnitude are called:

A. Deciles
B. Percentiles
C. Quartiles
D. None of the above (2 marks)

1.3 A building contractor estimates the time (in months) it would take to complete construction of maternity wings in rural clinics by the probability distribution shown below.

| **Time (months)** | 1 | 3 | 5 | 7 |
|---|---|---|---|---|
| **Probability** | 0.1 | 0.25 | 0.37 | 0.28 |

Evaluate the average time in months it would take to complete the project.

A. 1.0
B. 3.5
C. 4.7
D. 4.0 (2 marks)

1.4 Which of the following is NOT a measure of variability?

A. Median
B. Variance
C. Standard deviation
D. Range (2 marks)

1.5 A company estimates the net profit on a new product, it is launching, to be K5 million during the first year, if it is `successful', K3 million if it is `moderately successful', and a loss of K2 million if it is unsuccessful. The company assigns the following probabilities to the first`s year prospects for the product.

Successful: 0.38, moderately successful: 0.35, and unsuccessful: 0.27

Find the expected profit.

A. K2.20 million
B. K2.41 million
C. K3.29 million
D. None of the above (2 marks)

1.6 The frequency distribution of the hourly wage rate of 60 employees of a papermill is as follows:

| Wage rate | 55 – 57 | 57 – 59 | 59 – 61 | 61 – 63 | 63 - 65 |
|---|---|---|---|---|---|
| Number of workers | 12 | 12 | 22 | 12 | 12 |

The mean is:

A. 59
B. 60
C. 57.70
D. 57.20

(2 marks)

1.7 Two independent events M and N have probabilities 0.3 and 0.6 respectively. Find the conditional probability $P(M/N)$.

A. 0.90
B. 0.45
C. 0.18
D. 0.30 (2 marks)

1.8 The Skewness of a Normal distribution is?

A. Negative
B. Positive
C. Zero
D. Undefined

(2 marks)

1.9 The mean of ten numbers is 8. If an eleventh number is now included in the results, the mean becomes 9. What is the value of the eleventh value?

A. 19
B. 10
C. 11
D. 20

(2 marks)

1.10 Indicate which of the following is an example of seasonal variations.

A. Sudden causes by war
B. Recovery in business
C. The sale of air condition increases during the hot season
D. Death rate decreased due to advance in science

(2 marks)
**[Total: 20 Marks]**

**SECTION B**

**Question TWO (2) in this question paper is compulsory and must be attempted. Then attempt any THREE (3) questions from the remaining FOUR (4) questions.**

**<u>QUESTION TWO</u> - (COMPULSORY)**

(a) A sample was selected of 506 workers who currently receive two weeks of paid vacation per year. These workers were asked if they were willing to accept a small pay cut to get an additional week of paid vacation a year. The following table shows the responses of these workers.

| | **Yes** | **No** | **No Response** |
|---|---|---|---|
| Male | 77 | 140 | 32 |
| Female | 104 | 119 | 34 |

If one person is selected at random from these 506 workers, find the following probabilities.

(i) P(Yes) (2 marks)

(ii) P(Yes /Female) (4 marks)

(iii) P(Female and No) (3 marks)

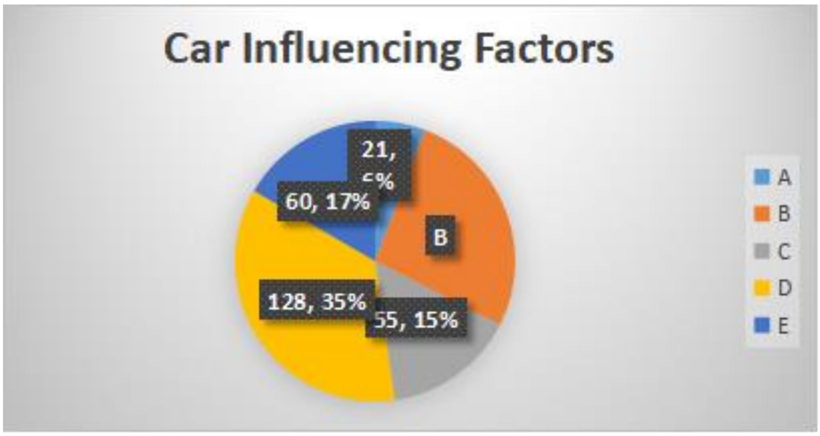
(iv) P(No Response or Male) (5 marks)

(v) Are the events "Female" and "Yes" independent? Are they mutually exclusive? Explain why or why not. (2 marks)

(b) A car manufacturer carried out a survey in which people were asked which factor from the following list influenced them most when buying a car:

A. The color range available. B. The servicing costs C. Driver air bag D. Fuel economy E. Range of optional extras

The pie chart below shows the results from 90 people



The names of those who took part were then placed in a prize draw. Find the probability that someone who said "servicing cost" will win the prize. (4 marks)

**[Total: 20 Marks]**

## QUESTION THREE

(a) A survey was conducted to assess the weekly expenditure of 150 employees in an organization on transport to their work stations. The weekly expenditure (in kwacha) on transport is summarized in the table below:

| Expenditure (K) | Frequency |
|---|---|
| 66 - 90 | 11 |
| 91 - 115 | 28 |
| 116 - 140 | 38 |
| 141 - 165 | 34 |
| 166 - 190 | 27 |
| 191 - 215 | 12 |

(i) Calculate the mean value of the weekly expenditure. (5 marks)

(ii) Calculate the standard deviation. (3 marks)

(iii) Find the modal value of the weekly expenditure (3 marks)

(iv) Find the median value of the weekly expenditure (3 marks)

(b) A sample of Zambian citizens has been categorized by province (Copperbelt, Lusaka, and Central), type of employment (mining or civil service), gender (male, female). The number of individuals in each category is summarized below:

| **Copperbelt** | | | | **Lusaka** | | | | **Central** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mining | | Civil service | | Mining | | Civil service | | Mining | | Civil service | |
| M | F | M | F | M | F | M | F | M | F | M | F |
| 15 | 10 | 60 | 40 | 8 | 2 | 50 | 15 | 25 | 5 | 60 | 10 |

From the above survey information, determine the sample proportion of people who are:

(i) In the Copperbelt province, (2 marks)
(ii) Female, (2 marks)
(iii) Employed as civil servants. (2 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

(a) At a certain bank, the mean checking account balance is $\mu$=K150 and the population variance of 196.

(i) Calculate the coefficient of variation of the checking account data. (3 marks)

(ii) What is the probability that the sample of randomly chosen checking account balances is as follows: Between K145 and K165. (5 marks)

(b) A Time series record of annual volumes of timber shipped across a country border town is shown in the table below.

| Year | Timber shipping (thousand tonnes) Quarter | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 2018 | 90 | 120 | 130 | 80 |
| 2019 | 95 | 80 | 100 | 90 |
| 2020 | 80 | 130 | 110 | 100 |
| 2021 | 93 | 140 | 130 | 90 |

**Required:**

Calculate the four (4) quarterly moving average of the quantities of timber shipped. (12 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

For a period of three (3) years a company monitors the number of units of output produced per quarter and the total cost of producing the units. The table below shows their results:

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Units of output (X) 1000's** | 14 | 29 | 55 | 74 | 11 | 23 | 47 | 69 | 18 | 36 | 61 | 79 |
| **Total cost (Y) K1000's** | 35 | 50 | 73 | 93 | 31 | 42 | 65 | 86 | 38 | 54 | 81 | 96 |

**Required:**

(a) Draw the scatter plot of the data. (3 marks)

(b) Calculate the equation of the regression line. (11 marks)

(c) If the selling price of each unit of output is K1.6, estimate the total cost (2 marks)

(d) Calculate the coefficient of correlation and interpret your answer correctly. (4 marks)

**[Total: 20 Marks]**

**<u>QUESTION SIX</u>**

(a) Give any two (2) reasons why data analysis is important for every business. (2 marks)

(b) (i) List two (2) methods of collecting primary data. (2 marks)

(ii) Define data interpretation. (2 marks)

(c) For a sample of 15 students at a college tuck shop, their monthly expenditure on confectionaries were recorded (in kwacha) as follows;

40, 101, 18, 20, 25, 110, 25, 25, 30, 35, 40, 53, 90, 20, 99,

**Required:**

(i) Calculate the range (2 marks)

(ii) Calculate the average salary of the graduates (3 marks)

(iii) Calculate the median. (2 marks)

(iv) Find the standard deviation. (4 marks)

(v) Find the interquartile range. (3 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## CA 1.2 BUSINESS STATISTICS SUGGESED SOLUTIONS

### SOLUTION ONE

| | |
|---|---|
| 1.1 | D |
| 1.2 | C |
| 1.3 | C |
| 1.4 | A |
| 1.5 | B |
| 1.6 | B |
| 1.7 | D |
| 1.8 | C |
| 1.9 | A |
| 1.10 | C |

**SOLUTION TWO**

(a)

| | Yes | No | No Response | Total |
|---|---|---|---|---|
| Male | 77 | 140 | 32 | **249** |
| Female | 104 | 119 | 34 | **361** |
| **Total** | **181** | **259** | **66** | **506** |

i. $P(Yes) = \frac{n(Yes)}{n(S)} = \frac{181}{506} = 0.358$

ii. $P(Yes/Female) = \frac{P(Y \cap F)}{P(F)} = \frac{n(Y \cap F)}{n(S)} \div \frac{n(F)}{n(S)} = \frac{104}{506} \times \frac{506}{361} = 0.288$

iii. $P(F \cap N) = \frac{n(F \subset N)}{n(S)} = \frac{119}{506} = 0.235$

iv. $P(NR \cup M) = P(NR) + P(M) - P(NR \cap M)$

$$= \frac{n(NR)}{n(S)} + \frac{n(M)}{n(S)} - \frac{n(NR \cap M)}{n(S)}$$

$$\frac{66}{506} + \frac{249}{506} - \frac{32}{506} = 0.559$$

v. Events "woman" and "yes" are dependent but not mutually exclusive.

(b)

First we find B as an angle:

$$B = 360^{\circ} - 128^{\circ} - 60^{\circ} - 21^{\circ} - 55^{\circ} = 96^{\circ}$$

Therefore, to find the number of people in B we proceed as follows;

$$\frac{96}{360} \times 90 = 24\ people$$

$$P(B) = \frac{n(B)}{n(S)} = \frac{24}{90}$$

$$0.267$$

**SOLUTION THREE**

(a)

| Class Limit | Xi | ni | niXi | ni(Xi-MEAN)$^2$ | Commulative frequency |
|---|---|---|---|---|---|
| 66 - 90 | 78 | 11 | 858 | 42694.19 | 11 |
| 91 - 115 | 103 | 28 | 2884 | 38956.12 | 39 |
| 116 - 140 | 128 | 38 | 4864 | 5749.02 | 77 |
| 141 - 165 | 153 | 34 | 5202 | 5483.86 | 111 |
| 166 - 190 | 178 | 27 | 4806 | 38374.83 | 138 |
| 191 - 215 | 203 | 12 | 2436 | 47175.48 | 150 |
| Totals | | **150** | **21050** | **178433.5** | |

(i) Mean:

$$\overline{X} = \frac{1}{\sum f}\sum f_i x_i = \frac{21050}{150} = 140.3$$

(ii) Standard deviation:

$$s = \sqrt{\frac{\sum f_i(x_i - \overline{x})^2}{\sum f - 1}}$$

$$s = \sqrt{\frac{178433.5}{150-1}} = \sqrt{1197.54} = 34.$$

(iii) Mode

$$Mo = L_k + w\left(\frac{d_1}{d_1 + d_2}\right)$$

$$k = class\ with\ highest\ frequency = 3$$

$$d_1 = 38 - 28 = 10$$

$$d_2 = 38 - 34 = 4$$

$$Mo = 116 + 24\left(\frac{10}{10+4}\right) = 133.1$$

(iv) Median

$$Md = L_k + \frac{w}{n_k}\left(\frac{n}{2} - CFk - 1\right)$$

$$= 116 + \frac{24}{38}\left(\frac{150}{2} - 39\right)$$

$$= 138.73$$

(b) (i) Copperbelt province$= \frac{15+10+60+40}{15+10+\ldots+60+10} = \frac{125}{300} = \frac{5}{12} = 0.42$

(ii) Female= $\frac{10+40+2+15+5+10}{15+10+...+60+10} = \frac{82}{300} = 0.27$

(iii)

Employed as civil servants = $\frac{60+40+50+15+60+10}{15+10+...+60+10} = \frac{235}{300} = 0.7833$

**SOLUTION FOUR**

(a) i) coefficient of variation $CV = \frac{\sigma}{\mu} \times 100 = \frac{\sqrt{196}}{150} \times 100 = \frac{14}{150} \times 100 = 9.3\%$

ii) normal distribution

mean=150, SD=$\sqrt{196} = 14$

$$\boldsymbol{P}(122 < X < 165) = P\left(Z > \frac{X-\mu}{\sigma}\right)$$

$$= P\left(\frac{122 - 150}{14} < Z < \frac{164 - 150}{14}\right)$$
$$= P(-2 < Z < 1)$$
$$= 1 - (0.0228 + 0.1587$$
$$= 0.8185$$

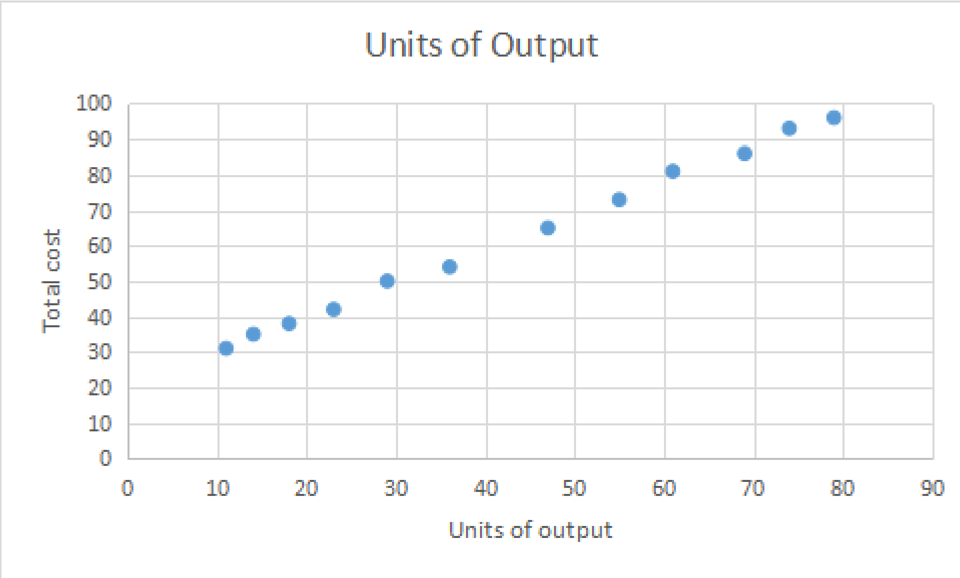
(b)

TIME SERIES

| QUARTERS (T) | QUANTITIES (Y) | FOUR MOVING TOTALS | QUARTERLY MOVING AVERAGE ($\widehat{Y}$) |
|---|---|---|---|
| 1 | 90 | | |
| 2 | 120 | | |
| 3 | 130 | 420 | 105.625 |
| 4 | 80 | 425 | 101.25 |
| 5 | 95 | 385 | 92.5 |
| 6 | 80 | 355 | 90 |
| 7 | 100 | 365 | 89.375 |
| 8 | 90 | 350 | 93.75 |
| 9 | 80 | 400 | 101.25 |
| 10 | 130 | 410 | 103.75 |
| 11 | 110 | 420 | 106.625 |
| 12 | 100 | 433 | 109.5 |
| 13 | 93 | 443 | 113.25 |
| 14 | 140 | 463 | 114.5 |
| 15 | 130 | 453 | |
| 16 | 90 | | |

**SOLUTION FIVE**

Scatter plot:




Summary statistics table:

| X | Y | X2 | XY | Y2 |
|---|---|---|---|---|
| 14 | 35 | 196 | 490 | 1225 |
| 29 | 50 | 841 | 1450 | 2500 |
| 55 | 73 | 3025 | 4015 | 5329 |
| 74 | 93 | 5476 | 6882 | 8649 |
| 11 | 31 | 121 | 341 | 961 |
| 23 | 42 | 529 | 966 | 1764 |
| 47 | 65 | 2209 | 3055 | 4225 |
| 69 | 86 | 4761 | 5934 | 7396 |
| 18 | 38 | 324 | 684 | 1444 |
| 36 | 54 | 1296 | 1944 | 2916 |
| 61 | 81 | 3721 | 4941 | 6561 |
| 79 | 96 | 6241 | 7584 | 9216 |
| **516** | **744** | **28740** | **38286** | **52186** |

Therefore,

$$\beta = \frac{n\sum XY - \sum X \sum Y}{n\sum X^2 - \left(\sum X\right)^2} = \frac{12 \times 38286 - 516 \times 744}{12 \times 28740 - (516)^2} = 0.961$$

and

$$\alpha = \overline{Y} - \beta \overline{X} = \frac{744}{12} + 0.961\left(\frac{516}{12}\right) = 20.69$$

Hence, the least–squares regression line is

$$y = \alpha + \beta x = 20.69 + 0.961x$$

i. $y = \alpha + \beta x = 20.69 + 0.961 \times 1.6 = 22.23$

ii. $\boldsymbol{r} = \dfrac{\boldsymbol{n\sum xy - \sum x \sum y}}{\sqrt{[\boldsymbol{n\sum x^2 - (\sum x)^2}][\boldsymbol{n\sum y^2 - (\sum y)^2}]}}$

$$= \frac{12(38286) - (516)(744)}{\sqrt{[12(28740) - 516^2][12(52186) - 744^2]}}$$

$\boldsymbol{r = 0.999}$

There is a very strong positive correlation between X and Y.

**SOLUTION SIX**

(a) Any two of the following reasons:

(i) **Better targeting** – using data analysis, you can determine what forms of advertising reach your customers effectively and make an impact that will make them buy your products.

(ii) **Knowing your target customers** – data analysis will help you check the performance of your products or business in the market.

(iii) **Helps solve problems** – Data analysis assists organisations to make an informed decision on the running of the business.

(iv) **New innovations** – Data analysis will help you produce products and create services that put you on top of your industry.

(v) **Cut costs of operation** – using data analysis, you can determine the sectors of your business that are using unnecessary finances and the areas that need more financing.

(b)

(i) Any two of the following:
Observation method
Personal interview
Telephone interview
Mail Survey

(ii) Data interpretation is the process of making sense of numerical data that has been collected, analysed and presented

(c).

a) I)RANGE= 110 – 18 = 92

II) mean $= \frac{1}{n}\sum x = \frac{1}{15}(18 + 120 + \ldots + 110) = 48.73$

III) 18, 20, 20, 25, 25, 25, 30, 35, 40, 40, 53, 90 , 99, 101, 110

Median = 35

IV)

$$S^2 = \frac{\sum X^2 - \frac{(\sum X)^2}{n}}{n-1} = \frac{51335 - \frac{(731)^2}{15}}{15-1} = 1122.1$$

Standard deviation= $\sqrt{1122.1} = 33.49$

(V) First quartile $Q_1 = 15 \times \frac{1}{4} = 3.75 = 4(th)term = 25$

Third quartile $Q_3 = 15 \times \frac{3}{4} = 11.25 = 12(th)term = 90$

Interquartile range =90-25=65

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA1.3: BUSINESS ECONOMICS

TUESDAY 12 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: One (1) compulsory scenario question.
   Plus Four (4) scenario questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A – (COMPULSORY)**

**Attempt all Ten (10) multiple choice questions.**

**<u>QUESTION ONE</u>**

Each of the following questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

1.1 What does the bowed-out shape of the production possibilities curve illustrate?

A. Law of increasing opportunity cost
B. The production is inefficient
C. The production is unattainable
D. The demand is relatively elastic

(2 marks)

1.2 In a particular year, the farmers experienced dry weather. If all other factors remain the same, the supply curve of wheat for farmers will shift to the ________ direction.

A. Downward
B. Rightward
C. Leftward
D. None of the above

(2 marks)

1.3 If the quantity demanded of a commodity is unresponsive to change in prices, then the demand of that commodity is ________.

A. Perfectly inelastic
B. Elastic
C. Unit elastic
D. Inelastic

(2 marks)

1.4 A monopoly will not only charge a higher price, it will also produce _____ output than a competitive market would produce.

A. More.
B. Less.
C. Better.
D. Poorer.

(2 marks)

1.5 Structural unemployment is the:

A. Portion of unemployment that is due to changes in the operation of the economy that result in a significant loss of jobs in certain industries.
B. Unemployment that occurs during recessions and depressions.
C. Portion of unemployment that is due to the normal working of the labor market.

D. Unemployment that results when people become discouraged about their chances of finding a job so they stop looking for work. (2 marks)

1.6 Study of the general price level is a subject matter of:

A. Microeconomics
B. Macroeconomics
C. Both (a) and (b)
D. None of these (2 marks)

1.7 Increase in the stock of capital is known as:

A. Capital loss
B. Capital gain
C. Capital formation
D. None of these (2 marks)

1.8 The economy is in its short run equilibrium at the point where the

A. Price level is stable.
B. Short run aggregate supply curve intersects the Long run aggregate supply curve.
C. Aggregate demand curve intersects the Long run aggregate supply curve.
D. Aggregate demand curve intersects the Short run aggregate supply curve. (2 marks)

1.9 Which of the following is the actual definition of transfer payments?

A. Transfer payments refer to the payments made as compensation to the employees within an organisation
B. Transfer payments refer to the payments made to workers on transferring from one job to another.
C. Transfer payments refer to the payments made without any exchange of goods and services
D. None of the above (2 marks)

1.10 The price at which one can enter into a contract today to buy or sell a currency 30 days from now is called a

A. Reciprocal exchange rate.
B. Effective exchange rate.
C. Exchange rate option.
D. Forward exchange rate. (2 marks)

**[Total: 20 Marks]**

## SECTION B

**Question two (2) in this section is compulsory and must be attempted. Then attempt any three (3) from the remaining four (4) questions.**

### QUESTION TWO - COMPULSORY

In a competitive market, firms are price-takers. Perfect competition allows freedom of entry. When existing firm earn economic profits, other firms will enter the market thereby increasing supply. On the other hand, if existing firms are suffering economic losses, some firm may leave the market. At the other extreme of the market is monopoly – a market dominated by a single produce. World over, there are many goods and services that are produced and sold by single entities. These firms are price markers and entry is almost impossible due to very strong barrier to entry. The chief decision every firm needs to make is how much to produce and the price to charge. Because profits are the difference between the firm's revenues and its cost, it is imperative that the firm understands correctly what constitutes a firm's costs.

**Required:**

(a) Suppose a monopolist is producing at a point at which marginal cost exceeds marginal revenue. Explain how it should adjust its output to increase profit? (5 marks)

(b) Why do firms enter an industry when they know that in the long run economic profit will be zero under perfect competition? (5 marks)

(c) Explain why marginal revenue is always less than average revenue at each price level under monopoly (5 marks)

(d) Compare the profit-maximising and average cost-minimising price/output combinations, and discuss any differences. When will average cost minimisation lead to long term profit maximisation? (5 marks)

**[Total: 20 Marks]**

### QUESTION THREE

National Income Accounting is focused primarily on the nation's output of goods and services. The array of goods and services produced is truly massive, including, everything from professional football to copper. All these things are part of our total output. The problem is to find a summary figure. Itemising the amount of each good or service produced each will not solve the measurement problem. The resulting list would be so long that it would be both unwieldy and meaningless.

To facilitate our accounting chores, a mechanism of aggregating the annual output data into a more manageable summary. The mechanism used is prices. Each good and services produced and brought to the market has a price. That price serves as a measure of value for calculating total output. However, coming up with the exact figure of national income is never realistic due to many challenges.

**Required:**

(a) Explain the meaning of 'valued added method' in national income accounting. (3 marks)

(b) Outline any four (4) challenges encountered when measuring and using National Income Accounts (8 marks)

(c) The following figures (in millions of kwacha) represent national income accounts of country X.

| | **K' Millions** |
|---|---|
| Consumer expenditure | 140 |
| Taxes on expenditure | 40 |
| Imports and property income paid abroad | 60 |
| Public authorities expenditure | 40 |
| Exports and property income from abroad | 40 |
| Capital consumption | 50 |
| Gross domestic fixed capital formation | 40 |
| Value of physical increase in stocks | 30 |
| Subsidies | 30 |

(i) Calculate Gross Domestic Expenditure at market prices (3 marks)
(ii) Calculate Gross national Product at factor cost (3 marks)
(iii) Calculate Net National Income (3 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

No country in the world is able to produce all the goods and services that the citizens want. This is because of the differences in climatic conditions as well as differences in resource endowments. Differences in climatic conditions imply that, it is impossible to economically produce some goods in some countries. Similarly, differences in resource endowments means that some countries cannot produce certain goods even though such goods may be a necessity in the country. To address the above realities, countries specialize in what they can produce cheaply relative to their trading partners; produce a surplus and export and conversely import the goods it cannot produce cheaply. Countries, however, erect barriers to free trade and plausible arguments to support that are given. Finally, it is very important for a country to know how well it is performing in terms of foreign trade. This is done by computing the Balance of Payments.

**Required:**

(a) Despite numerous advantages of free international trade, many countries including Zambia still practice protectionism. Briefly explain the following arguments in support of restricting imports:

(i) Infant industry argument (3 marks)
(ii) Anti-dumping argument (3 marks)
(iii) National interest argument (3 marks)

(b) Suppose country X's balance of payments for the year 2022 is shown below (all figures are in billions of dollars):

| | | | |
|---|---|---|---|
| Merchandise exports | + $40 | Net transfers | +$10 |
| Merchandise imports | -30 | Capital inflows | +10 |
| Service exports | +15 | Capital outflows | -40 |
| Service imports | -10 | Official reserves | +10 |
| Net investment income | -5 | | |

(i) Find the balance of trade (2 marks)

(ii) Find the balance on goods and services (2 marks)

(iii) Find the current account balance (2 marks)

(iv) Find the capital account balance (2 marks)

(v) Explain whether or not country X has a balance of payments deficit or surplus (3 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

An important example of a price floor is the minimum wage. Minimum-wage laws dictate the lowest price for labor that any employer may pay. In Zambia, the upward adjustment of the minimum wages and conditions of employment for vulnerable categories of employees namely domestic workers, shop workers and employees covered under General Order was done on 22 December 2022. The Labour Advisory Council (LAC) tasked ZIPAR to gather more information in order to adequately guide the LAC to come up with appropriate recommendation on the formulation of the sector based minimum wages for information Communication and Technology, Mining, and Agriculture sectors. Most European nations have minimum-wage laws as well; some, such as France and the United Kingdom, have significantly higher minimum wages than the United States.

**Required:**

(a) Explain any three (3) reasons for minimum wage intervention by governments. (6 marks)

(b) Using a graph, examine the effect of a minimum wage set above equilibrium wage. (5 marks)

(c) Using a graph, examine the effect of a minimum wage set below the equilibrium wage. (5 marks)

(d) Explain why it is important to have Sector based minimum wage as opposed to one across the board. (4 marks)

**[Total: 20 Marks]**

## QUESTION SIX

COVID-19 pandemic brought the economic expansion to a sudden halt, taking a tremendous toll on the U.S. labor market. The unemployment rate increased in 2020, surging to 13.0 percent in the second quarter of the year before easing to 6.7 percent in the fourth quarter. Although some people were able to work at home, the numbers of unemployed on temporary layoff, those working part time for economic reasons, and those unemployed for 27 or more weeks increased sharply over the year. A decade-long economic expansion ended early in 2020, as the coronavirus (COVID-19) pandemic and efforts to contain it led businesses to suspend operations or close, resulting in a record number of temporary layoffs. The pandemic also prevented many people from looking for work. ***Monthly Labor Review,(Smith et.al., 2021).***

**Required:**

Assume the following data for a country: total population, 500; population under 16 years of age or institutionalized, 120; not in the labor force, 150; unemployed, 23; part-time workers looking for full-time jobs, 10.

(a) Define the term labour force and Use the figures above to calculate the size of the labor force (4 marks)

(b) Define the term official unemployment rate and calculate the official unemployment rate? (2 marks)

(c) Explain with the help of a hypothetical graph the phases of a business cycle. (10 marks)

(d) Describe any two (2) types of unemployment that arose as a result of the pandemic. (4 marks)

**[Total: 20 Marks]**

**END OF PAPER**

# CA 1.3 BUSINESS ECONOMICS SUGGESTED SOLUTIONS

## SOLUTION ONE

| | |
|---|---|
| 1.1 | A |
| 1.2 | C |
| 1.3 | A |
| 1.4 | B |
| 1.5 | A |
| 1.6 | B |
| 1.7 | C |
| 1.8 | D |
| 1.9 | C |
| 1.10 | D |

**SOLUTION TWO**

(a) When marginal cost is greater than marginal revenue, the cost of producing the last unit is greater than the additional revenue from the sale of the last unit, so the firm loses money on that unit. The firm would increase profit by not producing as many units. It should reduce production, thereby decreasing marginal cost and increasing marginal revenue, until marginal cost is equal to marginal revenue. The diagram shows this situation. The firm is producing an output, where MC > MR. The firm should decrease output until it reaches the profit-maximizing output Q.

(b) Firms enter an industry when they expect to earn economic profit, even if the profit will be short-lived. These short-run economic profits are enough to encourage entry because there is no cost to entering the industry, and some economic profit is better than none. Zero economic profit in the long run implies normal returns to the factors of production, including the labour and capital of the owner of the firm. So even when economic profit falls to zero, the firm will be doing as well as it could in any other industry, and then the owner will be indifferent between staying in the industry or exiting.

(c) A monopolist's marginal revenue is less than the price of its products because its demand curve is the same as the market demand curve which means that to increase the quantity sold it has to reduce the selling price per unit it sells. This price cut reduces revenue on the units it was already selling.

(d) Given downward-sloping demand and marginal revenue curves, and a U-shaped or quadratic AC function, the profit-maximizing price/output combination will often be at a different price and production level than the average-cost minimizing price/output combination. This stems from the fact that profit is maximized when MR = MC, whereas average cost is minimized when MC = AC. Profits are maximized at the same price/output combination as where average costs are minimized in the unlikely event that MR = MC and MC = AC and, therefore, MR = MC = AC. It is often true that the profit-maximizing output level differs from the average-cost minimizing activity level. The profit-maximizing activity level can be less than, greater than, or equal to the average-cost minimizing activity level depending on the shape of relevant demand and cost relations

**SOLUTION THREE**

(a) Value added method is used to avoid double counting for those goods that go through many production stages before reaching the final consumer. Failure to use this method would overstate the value of national income

(b) Problems with the measurement and use of National Income Accounts are:

1. **Nonmarket production**: Work done where no charge is made will not be included in GDP. Examples include, housework, gardening, DIY, etc.
2. The **underground economy**: Transactions in the underground economy are not reported, typically for tax evasion or other illegal purposes, understating GDP.
3. **Leisure and human costs**: Increased leisure time and improved safety conditions at work, for example, are not reflected in GDP
4. **Quality variation and new goods**: Improvement in the quality of goods (e.g. dental treatment) and new goods not previously available (such as i-Pods and MP3 players replacing CD players) are not taken into account. The failure to allow for increased quality tends to result in inflation being overstated
5. **Economic 'bads'**: Harmful side effects, such as pollution, are ignored in GDP. In addition, for example, costs of rebuilding houses after flooding or earthquakes, is treated as national income for the year, even though this quite clearly is a cost rather than being a benefit.

(c) The Calculations are as follows (figures in millions of kwacha):

| | K' millions |
|---|---|
| Consumer expenditure | 140 |
| Public authorities expenditure | 40 |
| Gross domestic fixed capital formation | 40 |
| Value of physical increase in stocks and work in progress | 30 |
| **i) Gross Domestic Expenditure at market prices** | **250** |
| Less: Taxes on expenditure | (40) |
| Net property income paid abroad | (20) |
| Add: Subsidies | 30 |
| **ii) Gross national product at factor cost** | **220** |
| Less: Capital consumption | (50) |
| **iii) Net National Income** | **170** |

**SOLUTION FOUR**

(a) Arguments in support of restricting imports:

1. An infant industry is a young industry that may need temporary protection from competition from established industries of other countries to develop an acquired comparative advantage
2. Anti-dumping laws block imports that are sold below the cost of production by imposing tariffs that increase the price of these imports to reflect the cost of production
3. National interest argument states that countries should not be heavily dependent on imports from other countries of certain key products that have national security applications

(b) Bop computations:

1. The balance of trade is the difference between merchandise exports and merchandise imports. This is $40b - $30b = $10 which is a surplus
2. The balance on goods and services is the difference between exports of goods and services and imports of goods and services. This is $55b - $40b = $15b surplus
3. The current account balance is the difference between current account credits and current account debits. This is $65b - $45b = $20b surplus
4. The capital account balance is the difference between capital inflows and capital outflows. This is $10b - $40b = $30b deficit
5. Country X has a balance of payment deficit of $10b which is equal to the decrease in official reserves.

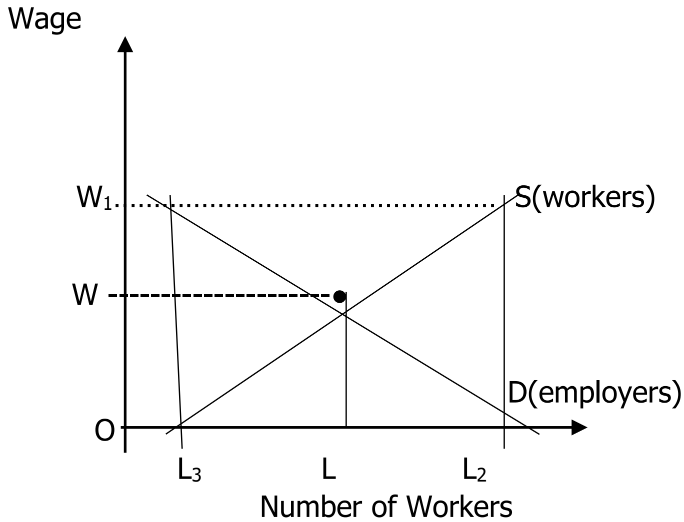
**SOLUTION FIVE**

(a) Reasons for government setting minimum wage are:

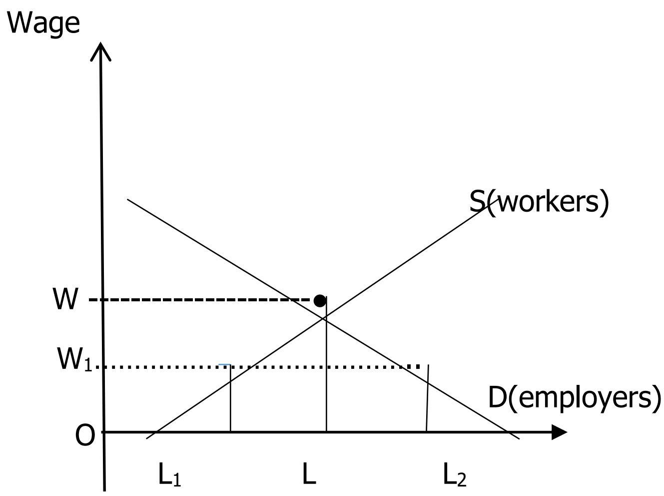
1. To prevent employers from exploiting low skilled workers with low bargaining power
2. To enable workers to earn an acceptable income for humane level of existence
3. To correct too low market determined wage

(b) To determine the effects of a minimum wage, the starting point is to state the initial equilibrium where there is no government intervention. This is where the wage is determined by the market forces of demand and supply. The going wage occurs where demand and supply are equal (intersect).

If the minimum wage is above equilibrium (W), as shown below, the quantity of labour supplied exceeds the quantity demanded. The result is unemployment. The employers demand $L_1$ only while supply of workers is $L_2$ on the market. Thus, the minimum wage raises the incomes of those workers who have jobs, but it lowers the incomes of workers who cannot find jobs.




(c) If the minimum wage is below equilibrium level, as shown below, the number of workers demanded exceeds the quantity supplied. The result is a shortage. The employers demand $L_2$ number of workers but only $L_1$ are available



Number of Workers

(d) It is important to have a sector based minimum wage to take into account the differences that are peculiar to circumstances of the workers in a given sector. Across the board minimum wage may not address these differences.

**SOLUTION SIX**

(a) Size of the labor force
The labor force is that part of the population that is either employed or seeking employment. People who are under the age of 16 years or institutionalized are not counted in the labor force even if they are seeking employment.

Labor Force = Total population – population under 16 years of age or institutionalized – not in the labor force

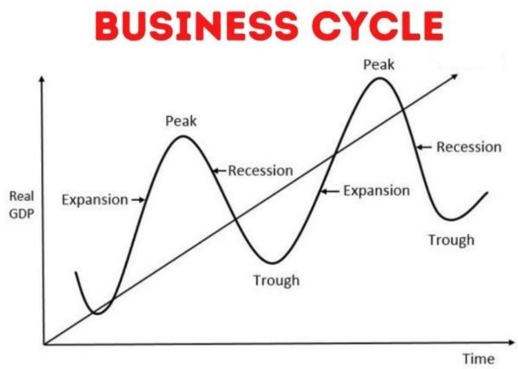
Labor Force = 500 – 120 – 150

Labor Force = **230**

(b) Official unemployment rate
The unemployment rate is the percentage of the unemployed labor force in the economy. All those who are working either part-time or full time are considered employed. Only those who are not working at all and actively searching for a job are considered unemployed.

Therefore, the official unemployment rate is 23/230= **10%.**

(c) A business cycle, sometimes called a "trade cycle" or "economic cycle," refers to a series of stages in the economy as it expands and contracts. Constantly repeating, it is primarily measured by the rise and fall of gross domestic product (GDP) in a country. The expansion periods denote the phase of the business cycle when overall economic activity is growing, with rising outputs and incomes, sales, and employment. A peak in the business cycle occurs when economic activity reaches its highest point and begins to slow down or turn down. The contraction phase begins when economic activity starts to fall, or economic growth becomes negative. The trough in the business cycle marks the lowest point of the contraction phase, when incomes and output reach their lowest point and the economy starts to expand again.




**(d) Types of unemployment**
**Cyclical Unemployment**

The term "cyclical unemployment" refers to the variation in the number of unemployed workers during cycles of economic strength and weakness. When demand for a product or service declines, production also goes down. This creates less need for employers to hire people who are looking for jobs, causing the unemployment rate to increase. During the early stages of the COVID-19 pandemic, for example, people were confined to their homes, leading many businesses to shut down. During this economic downturn, many employees of those businesses weren't needed and were left unemployed.

### Frictional Unemployment

Frictional unemployment is the result of people voluntarily leaving their jobs. People who've resigned from their jobs and graduates seeking their first jobs need time to find employment, leaving them unemployed in the interim. This type of unemployment usually is short term, and it's present even in a healthy economy as people leave their jobs to seek new opportunities. The economy that emerged from the COVID-19 pandemic saw frictional unemployment, for example, when employers asked employees to return to work in person after they'd worked remotely for many months. Many employees who preferred to work from home voluntarily left their jobs in search of roles that better fit their needs.

### Structural Unemployment

Fundamental changes in the economy and labor markets, such as evolving technology, government policies, and competition, can create structural unemployment. This means that while jobs are available, the people who could fill those roles either don't have the right skills for them or aren't in the right location. Manufacturing employees may contribute to structural unemployment, for example, when the requirements of their jobs change, leaving them unemployed because they no longer possess the right technological skills.

## END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 15 SEPTEMBER 2023

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: One (1) compulsory scenario question.
   Plus Four (4) scenario questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A – (COMPULSORY)**

**Attempt all Ten (10) multiple choice questions.**

**<u>QUESTION ONE</u>**

Each of the following questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

1.1 Law can be defined as:

A. Rules based on criminal laws

B. A theory to keep wrongdoers in prison

C. Rules which regulate the conduct of people

D. Restrictions which leaders create in times of emergency

(2 marks)

1.2. Some differences between law and morality are………………………………………………..

A. Morals are about beliefs which society upholds and not easily changed, whilst the law is fixed and can only be changed by Parliament.

B. Law evolves over many years, whilst morality originates from customary laws

C. Morality can be ignored whilst the law cannot

D. Law has to be interpreted by the courts, whilst morality is based on known norms. (2 marks)

1.3 Which of the following statements contains the correct definition of a contract of sale.

A. This is a contract where the seller transfers goods to the buyer.

B. This is a contract where the buyer can exchange goods for goods with the seller.

C. This is a contract where one makes an offer and the other accepts unconditionally.

D. This is where the seller agrees to transfer the property in the goods to the buyer for money consideration known as the price.

(2 marks)

1.4 Which one of the following is an unincorporated organisation?

A. General partnership

B. Mwango and Company Ltd

C. Public limited company

D. Private limited company

(2 marks)

1.5 What is meant by the term "specific goods"?

A. Specific goods are goods that are identified and agreed upon at the time a contract of sale is made.

B. Specific goods are goods that have been specifically made to fulfil the buyer's order.

C. Specific goods are goods that have a specific (rather than a general) use.

D. Specific goods are goods that the seller has had to order specifically for the buyer. (2 marks)

1.6 Which of these is not true regarding the doctrine of *stare decisis*?

A. A lower court is not bound by a decision of a superior court in the same jurisdiction when the superior court has decided the same or similar issue.

B. A decision of the high court in one province is binding in other provinces to all magistrate courts.

C. Lower courts have considerable leeway to distinguish the earlier case on the basis of its facts.

E. All of the above are true. (2 marks)

1.7 In an action for negligence, there must be a close and direct connection between the parties. This refers to:

A. Proximity

B. Reasonable foreseeability

C. Policy grounds

D. The neighbor principle (2 marks)

1.8 An intention to create legal relations:

A. Is determined by a test of whether the parties themselves actually intended to enter into a contract.

B. Is determined by a test of whether a reasonable person would believe the parties intended to enter into a contract.

C. Is usually presumed in a family context but not a business context.

D. Both B and C. (2 marks)

1.9 A void contract is:

A. A contract that does not meet seven key requirements from intention to create relations through legality.

B. A contract with no legal effect from the beginning, as though it never happened.

C. A contract that is valid unless and until it is rejected at the option of one of the parties.

E. A contract with a mistake in it. (2 marks)

1.10 Which of these is not a partnership rule implied by statute in case it is not expressly covered in the agreement?

A. A partner is entitled to be paid a salary for engaging in a partnership basis.

B. A partner is not entitled to interest on capital contributions to the partnership but is entitled to interest on loans to it.

C. Unanimous consent is required to admit a new partner.

D. All of the above are implied terms. (2 marks)

**[Total: 20 Marks]**

**SECTION B**

**Question TWO (2) in this Section is Compulsory and must be attempted.**

**Attempt any three (3) questions out of the remaining FOUR (4)**

**<u>QUESTION TWO</u> - (COMPULSORY)**

(a) A contract may come to an end with the parties discharged from their contractual obligations in four main ways, namely: Performance; Agreement; Frustration and Breach. Discuss the types of *performance* as a way through which a contract may be discharged. (10 marks)

(b) Explain the difference between an implied warranty and an implied condition in a contract of sale. (5 marks)

(c) The driver of a petrol tanker was engaged in transferring petrol to an underground tank when he lit a cigarette and threw a match stick to the floor. This caused a fire and an explosion which did great damage. The question which arose was as to "who was to be held liable"?

**Required:**

With reference to the above scenario and using the rules of employment law, advise as to who would be liable? (5 marks)

**[Total: 20 Marks]**

**<u>QUESTION THREE</u>**

Shoka Beef Café is a well-known eating place in Northmead and hosts thousands of people who drive as far as Chongwe town and other surrounding arears for their beef. Pauline and her two friends decided to have a feel of the café and travelled from Kafue to go and have a taste of their meals. While at the café, Pauline's friend Mumba ordered and paid for their meals which included fried rice, Carrot soup and their biggest plata of shoka beef. The meal was served and they started eating the sumptuous food.

A few days later, it was reported on the news that the day Pauline and others went to eat at the Café; there was a head of the dog that was found in the pot used to prepare the beef. When Pauline heard this, she started vomiting and claimed that she had suffered a stomach upset. The restaurant owner has now come to you for advice.

**Required:**

(a) With reference to the above scenario, advise him on whether a case can be made out by Pauline in negligence? (10 marks)

(b) Assuming Mumba wanted to claim, discuss the area of law she can sue. (5 marks)

(c) In an agency relationship, the principal can ratify a contract under certain conditions. Explain the conditions. (5 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

Mr Chiteta of Mwinilunga District has been elected as MP of Zambezi West Constituency. In one of his visits to the constituency, he notices that his constituency lacks adequate health and educational facilities. He has proposed to the Minister in charge of North-Western Province Mr Kabijimpanga to propose a law that will accord equal development to all the ten (10) provinces of Zambia. Mr Chiteta happens to be your neighbour. During one of his visits to your home, tries to enquire from you the process that will be undertaken to enact this law.

**Required:**

(a) Explain the said process to Mr. Chiteta. (10 marks)

Mr. Chiteta also wants you to help him with the following:

(b) An explanation on the ways through which an agency relationship may be created by implication. (6 marks)

(c) State any four (4) contents of the Directors Report. (4 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

Hillklint Limited is a pulsating company that has been in existence for more than fifteen (15) years. The appointment of Galagata Mwansa as a Managing Director, who has no experience in running the company except a record that he dropped out of School in grade five (5) has brought problems in the company.

A report has been given to the shareholders in their meeting that Galagata Mwansa did not have any knowledge in corporate and commercial practice as exhibited by huge loans he has contracted from Intermarket Bank Zambia Limited which is now pressing for its money from the company. Evidence shows that Hillklint Limited is financially distressed and needs immediate corporate help since its assets and or total capital stands at ZMW 15,750,000 while a careful investigation reveals that its liabilities stand at ZMW 14,522,000.

The Board of Directors still argue that the company can pay out its liability and wind up properly. However, creditors have pressed that it will be just and equitable for the company to wind up through a court order with immediate effect especially that two years have passed with the company having one member.

**Required:**

(a) With the aid of the above, explain if voluntary winding up in Hillklint Limited can succeed. (10 marks)

(b) Explain to the creditors on their proposal to wind up the company through a court order. (10 marks)

**[Total: 20 Marks]**

**QUESTION SIX**

(a) Bilozi Company has been doing business for the past four years. It started as a small entity which has steadily been growing over the years. Mr Bingo, the founder of the company intends to grow the company's business. However, he does not know what needs to be done as this company was registered as a private company limited by shares with a share capital base of K800,000. He now approaches you for advice on how he can go about expanding his business.

**Required:**

Advise Mr. Bingo. (10 marks)

(b) April is a young lady working for a firm known as Avant Business Consultants. The company specialises in company registration; tax registration; Napsa payments; etc. Avant Business Consultants, have been engaged by a big Australian investor to register a mining business on their behalf. April has been appointed as the forerunner for this project. April is more than willing to undertake her new task and is so excited and enthusiastic to begin her work. In the process of registering this entity she realises that there is some equipment that the entity must have in order for it to comply with all registration procedures. April, hence decided to order the equipment from South Africa on the premise that this was as of necessity. The equipment was accordingly delivered. Unfortunately, the certificate of incorporation was slightly delayed. The suppliers have now threatened to sue April for the purchase price.

**Required:**

Explain to April how she can avoid liability under the circumstances. (10 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## CA1.4 COMMERCIAL AND CORPORATE LAW SUGGESTED SOLUTIONS

### SOLUTION ONE

1.1 C

1.2 A

1.3 D

1.4 A

1.5 A

1.6 A

1.7 A

1.8 B

1.9 B

1.10 A

**SOLUTION TWO**

(a) **Types of Performance: -** The general rule is that parties must carry out precisely what they agreed under the contract. If one of the parties does less than, or different from that which he agreed to do, he is not discharged from the contract and cannot sue under the contract. Performance is one of the ways trough which a contract is discharged. Once a contract is discharged it means that both parties are relieved from their obligations. The following are the types of performance:

1. **Partial performance:** If one of the parties only partially carries out his side of the contract, but the other party exercising a genuine choice, accepts the benefit of the partial performance, the court will infer a promise to pay for the benefit received. **Cutter v Powell (1795)**, Cutter agreed to serve on a ship sailing from Jamaica to Liverpool. The ship sailed on 2nd August, arriving in Liverpool on 9th October but Cutter died at sea on 20 September. **Held:** His widow could not recover anything for the work done before he died. Cutter was obliged to complete the voyage before he was entitled to payment. However, the parties may agree otherwise then a party can accept partial performance and payment can be made.
2. **Substantial performance:** Substantial performance entails that a party has performed three quarters of the work or the work has been completed, but with a few defects. If the court decides that the plaintiff has substantially carried out the terms of the contract, the plaintiff may recover for the work he or she has done. The defendants may counter claim for any defects in the performance. **Hoeing v Isaacs (1952),** the plaintiff agreed to decorate the defendant's flat and fit a bookcase and wardrobe for E 750. On completion of the work, the defendant paid E400 but he complained about faulty workmanship and refused to pay the balance of E350. **Held:** The court held that the contract had been substantially performed. The plaintiff was entitled to the outstanding E350, less the cost of remedying defects which was estimated at E55 18s 2c.

(b) An *implied condition* in a contract is that which is not stated or written but it may be implied by fact or deed. Breach of a condition leads to termination of a contract and/or claim for damages because it is a fundamental term of a contract, while an *implied warranty* is a written term for the assurances whether written or oral that a product is fit for the purpose intended and is merchantable i.e. it conforms to an ordinary buyer's expectations. Breach of a warranty only entitles the innocent party to damages because it is not a fundamental.

(c) This scenario borders on vicarious liability which simply means that the employer will be liable for the wrongful acts committed by his employees during the course of employment. This may include acts outside contractual duties, unauthorised ways of performing contractual duties and acts forbidden by the employer. In the case of **Century Insurance Co v Northern Ireland Road Transport Board (1942)**, the driver of a petrol tanker was engaged in transferring petrol to an underground tank when he lit a cigarette and threw a match to the floor. This caused a fire and an explosion which did great damage**. Held:** The employer was liable for the driver’s negligence. In the same way, the employer in this case will be liable as the driver was performing his contractual duties, thus the doctrine of vicarious liability will apply.

**SOLUTION THREE**

(a) The issue in this case is based on negligence. Negligence is not taking care in particular circumstances as required by the law. Negligence has three main elements, duty of care; breach of duty and resultant damage. For an action in negligence to be successful, all three elements must be present.

In Pauline's case, a duty of care was owed to her by the cafe by ensuring that the food they were preparing were fit for human consumption; there was breach of duty when the food that was served to them was later on found to be mixed with a head of a dog which ought not to have been there.

It must be noted that even when Pauline took the food, the vomited and or nausea was only identified when she heard that a head of a dog was found. Pauline did not exhibit any medical evidence to show that she suffered from the said breach.

This position was seen in **Continental Restaurant** and **Casino Limited v Arida Mercy Chulu (2000),** Mrs. Chulu was awarded damages amounting to K85 million after she found a cockroach in the mushroom soup which she was served at the restaurant. The company that owned the restaurant appealed and the appeal was allowed.

In the same way Pauline may attempt to take an action in negligence and the defence that can be raised is that not all elements of negligence were present or if there is no proper medical evidence given as stated in the above case.

(b) From the scenario above, it shows that Mumba ordered the food and paid for it. This entails that there was a contract between her and the café. The contract was for her to buy food to eat and the café's duty in the contract was to sale food which was paid for or asked for. The fact, that a head of the dog was found in the found not only breaches a contract but breaches the statutory obligations of the café. Thus, Mumba can claim in contract.

(c) The Principal can ratify a contract under the following conditions:

1. He should within a reasonable time after the agent has made a contract for him ratify it.
2. He ratifies the whole contract and not merely part of it.
3. He is either fully informed of the terms of the contract or he is prepared to ratify whatever the agent may have agreed to on his behalf.
4. He communicates a sufficiently clear intention of ratifying.

## SOLUTION FOUR

(a) The following are the stages through which the proposed law, known as the 'bill' will go through before it becomes law:

**First reading-**A Bill will appear on the Order Paper of the relevant day. It is presented in 'dummy form' and deemed to be read a 'first time'. Alternatively, a Bill may be presented on order of the House. Following the purely formal introduction into Parliament, a date will be set for second reading and the Bill is supposed to be printed and published.

**Second Reading-**It is at the second reading that a Bill will receive the first in depth scrutiny. The scrutiny occurs in the form of a debate, generally on the floor of the House, and is confined to matters of principle rather than detail. It is at second reading stage that the Minister in charge of the Bill must explain and defend the contents of the Bill. The Opposition's task is to probe and question and set out reasons for opposing the Bill.

Once the Bill has successfully completed the second reading stage, it 'stands committed' to a standing committee, unless, exceptionally, the House orders otherwise.

**Committee Stage-**Standing committees are designed to scrutinise Bills in detail. In fact, they are not. The committee will be established for the purpose of examining a particular Bill and will then stand down. The function of the standing committee is to examine the Bill clause by clause. The Minister in charge of the Bill has the task of steering it successfully through committee stage. Members of standing committee may propose amendments. Once the clauses of the Bill have been considered, the committee moves to consider any proposed new clauses.

**Report Stage-**Once the Bill has been considered in standing committee, the Bill is reported back to the House as a whole. If amendments have been in the committee, the Bill will be reprinted. Further amendments may be introduced at this stage, but the speaker will be careful to void repetition of the debate in standing committee, so any proposed amendments previously considered will be rejected.

**Third Reading-**The third reading represents the last chance for Parliament to examine a Bill before it received the presidential assent or, in the case of the United Kingdom, before it passes to the House of Lords. At this stage, the Bill cannot be amended other than to correct small mistakes such as grammatical or printing errors.

(b) An agency relationship can be created by express appointment or by implication. The agent may be appointed verbally or in writing, unless he is authorized to execute a deed, in which case the appointment must be by deed. By **Implication-**

-Agency will arise when, although there is no specific agreement, a contract can be implied from the conduct or relationship of the parties.
-The test is objective and agency may therefore be implied even if the principal and agent did not recognize the relationship between themselves (Gernac Grain Co. v H.M. Failure 1967).
-If an alleged agent is a partner in a firm, he will be held to be acting as the agent of his co-partners if the contract that he made is within the usual agent of the partnership business.
-Cohabitation (rather than marriage) raises a presumption that the woman has authority to pledge the man's credit for necessaries. In defining necessaries regard has to be to the man's style of living rather than to his actual means. The presumption can be rebutted by evidence that, for example, the trader had been told not to supply goods to the woman on credit, or that the woman sufficient funds to purchase necessaries.
-An implied agency may arise by estoppel. Thus if a person by his words or conduct represents another as having authority to make contracts on his behalf, he will be bound by such contracts as if he had expressly authorized them. i.e. is estopped by his conduct from denying the existence of an agency.

(c) The main contents of the Director's Report are:

- Changes in the business
- Information of the Directors of the company
- Assets
- Share and Debenture issues

  Other disclosures

## SOLUTION FIVE

(a) **Voluntary Winding Up**
As we speak about winding up, it is vital to note that it can occur at the instance of the either the members or creditors. Winding up is also classified according to whether the company is solvent or insolvent.
From the scenario, it appears that the assets are more than the liabilities which entails that the company may wound up without difficulties.

**From the facts,** voluntary liquidation appears to be the more probable was since it refers to the process whereby the shareholders appoint a liquidator, who is then answerable to the creditors or shareholders. It is not necessary to make any application to the court for this; however, the liquidator may apply to the court for directions and the court has power to remove a liquidator.

A voluntary liquidation may also by commenced by the board of directors if an event specified in the company's constitution has occurred. Voluntary liquidation may be in one of two forms, depending on whether or not the company is solvent. If the company is solvent the shareholders can supervise the liquidation. However, if the company is insolvent, the creditors may take control of the liquidation process by applying to the court. The court will require proof of solvency or insolvency to determine this matter. Therefore, a creditor's voluntary winding up occurs where the shareholders resolve to put the company into liquidation but cannot make a declaration of solvency. While a members 'voluntary winding up occurs where the shareholders of the company pass a resolution to wind up the company and appoint a liquidator. In order for it to be a members' voluntary winding up, the directors have to make the declaration of solvency confirming that the company will be able to pay all its debts.

Therefore, voluntary winding up can succeed from the given facts.

(b) **Compulsory Winding Up by the Court**
The creditors proposal is also welcome especially that the company has been trading with one director for more than one year without rectifying the issue. The creditors can compulsorily wind up the Company by using Compulsory liquidation of a company requires obtaining a court order. The application may be brought by the company or a majority of its directors, or by the Registrar of Companies, or by a creditor. Applications by creditors are by far the most important and common. This process starts with an application to the court alleging that one or more of the required grounds exist. It must be noted that the law provides that the Court may order the winding-up of a company on the petition of a person other than the Official Receiver if—

(i) The company has by special resolution resolved that it be wound-up by the Court ;

(ii) The company is unable to pay its debts;

(ii) The period, if any, fixed for the duration of the company by the articles expires, or an event occurs in respect of which the articles provide that the company is to be dissolved;

(iv) The number of members is reduced below two;

(v) The company was formed for an unlawful purpose;

(vi) The incorporation of the company was obtained fraudulently; or

(vii) In the opinion of the Court, it is just and equitable that the company should be wound-up

From the given facts, the Creditors have mentioned that the number of members has reduced below 2 for one year and that it was just and equitable to for the company to wind up. This being the case, the provisions of the law above provide for the situation in which a company can be wound up through these 2 elements being winding up by the Court.

**SOLUTION SIX**

(a) There are a number of ways by which Bilozi Company Ltd can expand its business. They include the following:

(i) **Alteration (increasing) the nominal value of its shares.** The amount of the authorized share capital contained in the application for incorporation sets a limit on the aggregate nominal value of the shares, which a company limited, by shares may issue. This value may not be altered without following the laid down procedures. The company can increase the share capital by holding a meeting at which a special resolution which requires 75% of the majority votes cast. Then the company can engage in any of the following methods to increase the share capital: Sell shares at a premium; introduce a new class of shares; or sell unissued shares.

(ii) **Floating its shares on the stock exchange**. By so doing the company can invite new investors who will pump in more money for its expansion.

(iii) **Loan Capital**. The company can expand its business by borrowing from financial institutions, or debentures so that it increases its working capital and be able to operate at a more efficient level.

(b) A promoter has been defined as 'one who undertakes to form a company with reference to a given project and to set it going and who takes the necessary steps to accomplish that purpose': ***Twycross v Grant 1877***. A common way to avoid the problem concerning pre-incorporation contracts is to buy a company 'off the shelf'. They can also put a clause avoiding liability or that the company would be held liable for pre-incorporation contracts. Even if a person contracts on behalf of the new company before it is bought it should be possible for that company to ratify the contract since it existed 'on the shelf' at the time the contract was made. The promoter must have made it clear that he acted as a company's agent. It makes no difference that the name of the shelf company is changed once it is bought and ratifies in that name. At this point it may not be possible to avoid liability as she must have taken certain steps before entering into the transaction which she did not. The case of ***Kelner v Baxter (18660,*** K wrote a letter to B, C and D as agents for a 'proposed' hotel company – K well knew that the company did not yet exist. The letter offered to sell a stock of wine. B, C and D accepted the offer 'on behalf of the company. The wine was delivered to the company was not liable but B, C and D must be presumed to have intended to make themselves personally liable must therefore pay.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 11 SEPTEMBER 2023

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: One (1) compulsory scenario question, plus Four (4) scenario questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

## SECTION A

**Attempt all ten (10) multiple choice questions in this section.**

Each of the following questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

**QUESTION ONE**

1.1 Most companies begin the process of establishing organizational ethics programs by developing:

A. Ethics Training Programs.
B. Codes of Conduct.
C. Ethics Enforcement Mechanics.
D. Hidden Agendas. (2 marks)

1.2 Mission statements are likely to have characteristics such as:

A. Stating the purpose of the organization.
B. Providing a general statement of the organizations culture.
C. Acting as a guide to develop the direction of the entity's strategy and its goals/objectives.
D. All of the above.

(2 marks)

1.3 Which one of the following is an example of an internal stakeholder?

A. Shareholders.
B. Employees.
C. Suppliers.
D. Financiers.

(2 marks)

1.4 Which among the following statements is **NOT** true for Globalization?

A. Workers were denied their rights because labor laws were not implemented.
B. It helped in creating several jobs in the service sectors.
C. People having wealth, skill and education are not beneficiaries from globalization
D. Globalization has unequal benefits.

(2 marks)

1.5 What is the main purpose of a SWOT analysis?

A. To identify the Strengths, Weaknesses, opportunities and threats of the company.

B. A tool for CEOs to manage explain to the Board of Directors the Culture.

C. To satisfy the need for stakeholders to receive inducements.

D. To enable CEO succession planning there SWOT tools. (2 marks)

1.6 Which of the following defines what business or businesses the firm is in or should be in?

A. Business strategy.

B. Corporate strategy.

C. Functional strategy.

D. National strategy. (2 marks)

1.7 For fast communication and to get correct feedback, the following organization is suitable for

A. Informal Organization.

B. Functional Structure.

C. Formal Organization.

D. Divisional Structure. (2 marks)

1.8 "A small number of people with complementary skills who are committed to a common purpose, performance goals and approach for which they hold themselves basically accountable" This is the definition of:

A. A unit

B. A pair

C. A group

D. A team (2 marks)

1.9 The system that is used by firms to control and direct their operations and the operations of their employees is called:

A. Corporate Compliance.

B. Corporate Governance.

C. Corporate Control.

D. Corporate Directive. (2 marks)

1.10 Identify the four (4) main styles of leadership displayed by the Manager which are identified in Tannenbaum and Schmidt's continuum of possible leadership behaviors:

A. Tells, help, joins and leads.

B. Commands, sells, consults and resists.

C. Tells, sells, consults and joins.

D. Commands, help, joins and leads. (2 marks)

**[Total: 20 Marks]**

**SECTION B**

**Question Two (2) in this section is compulsory and must be attempted.**
**Then attempt any THREE (3) questions from the remaining four.**

**<u>QUESTION TWO</u> - (COMPULSORY)**

There is a long history behind the evolution of management thought. Management is considered as the significant feature of economic life of mankind throughout ages. Management thought is regarded as an evolutionary concept. It has developed along with it and in line with social, cultural, economic and scientific institutions. Management thought has its origin in ancient times. It is developed along with other socio-economic development. The contributors to management theory include management philosophers, management practitioners, and scholars. Modern management is based on the strong foundation laid down by the management thinkers from the past events.

**Required:**

(a) Explain what you understand by the term Management Thought? (2 marks)

(b) From your knowledge of this course, identify Five (5) managerial roles as stated by Mintzberg (1973). (10 marks)

(c) Define the following terms used in management:

(i) Equity (2 marks)

(ii) Span of control (2 marks)

(iii) Line authority (2 marks)

(iv) Departmentalization. (2 marks)

**[Total: 20 Marks]**

**<u>QUESTION THREE</u>**

Chipembele Quarries Limited is a private company based on the Copperbelt Province of Zambia. It has been in existence for the last twenty (20) years. The company operations had made good contribution to the return on its investment in the last fifteen years. This cannot be said to be so in the last five (5) years as it has lost experienced and skilled employees who have left the company due to frustrations on account of lack of further investment in new equipment, employee retraining and improved conditions of service. The company has contracted you to advice management as to how the company can re-engineer itself and compete favorably. In your study, you have discovered that job design can play a great role in motivating employees and revamping the organization.

**Required:**

(a) Micro-designed jobs have many advantages in resolving the frustrations at Chipembele Quarries limited, State any five (5) advantages of micro-designed jobs. (10 marks)

(b) Job enrichment is another way of resolving the problem. List any four (4) ways, a job may be enriched. (4 marks)

(c) Employees may also need personal development in the company; Explain any three (3) ways in which a personal development plan may contribute to individual employee's motivation in the company. (6 marks)

**[Total: 20 Marks]**

**<u>QUESTION FOUR</u>**

Vincent Mwayekwa has been working for his company, Lunzuwa Development Company (LDC) limited for over ten (10) years as Technical Manager. Last month, he was promoted to the position of Chief Executive Officer. He has requested you to facilitate on an in-house management seminar at his company and that he would be in attendance himself. You are going to base your presentation based on governance functions for the manager.

**Required:**

(a) Define Corporate Governance (3 marks)

(b) List down six (6) principles of good Corporate Governance (12 marks)

(c) State the five (5) functions of management identified by Henry Fayol. (5 marks)

**[Total: 20 Marks]**

**<u>QUESTION FIVE</u>**

Nowadays, partnerships type of business has become a way to go and reduce cost. A partnership is a kind of business where a formal agreement between two (2) or more people is made who agree to be the co-owners, distribute responsibilities for running an organization and shares the income or losses that the business generates. A partnership is divided into different types depending on the state and where the business operates. In a broad sense, a partnership can be any endeavor undertaken jointly by multiple parties. The parties may be governments, nonprofits enterprises, businesses, or private individuals. The goals of a partnership also vary widely. From your knowledge of this type of business, answer the following questions.

**Required:**

(a) State six (6) reasons why people establish a partnership. (6 marks)

(b) Identify six (6) potential issues (ROAD BLOCKS) Arising from a Partnership. (12 marks)

(c) In partnership there is a significant legal document needed in order to operate the partnership. State the name of this document and how useful it is to this type of business. (2 marks)

**[Total: 20 Marks]**

## QUESTION SIX

Leadership is the potential to influence behavior of others. It is also defined as the capacity to influence a group towards the realization of a goal. Leaders are required to develop future visions, and to motivate the organizational members into the vision of the organization. According to Keith Davis, "Leadership is the ability to persuade others to seek defined objectives enthusiastically. It is the human factor which binds a group together and motivates it towards goals.

**Required:**

(a) Illustrate six (6) Qualities of a Good leader. (6 marks)

(b) With at least Seven (7) points, compare and contrast leadership and Management. (14 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## CA1.5 MANAGEMENT THEORY AND PRACTICE SUGGESTED SOLUTIONS

### SOLUTION ONE

1.1 B

1.2 D

1.3 B

1.4 C

1.5 A

1.6 B

1.7 A

1.8 D

1.9 B

1.10 C

**SOLUTION TWO**

(a) Management thought refers to the theory that guides management of people in the organization. Initially management theories were developed out of the practical experience of the managers in the industrial organization.

(b) Figurehead, leader, liaison, monitor, disseminator, spokesperson, entrepreneur, disturbance handler, resource allocator, and negotiator.

(c)

1. Equity-there should be fairness and equality of treatment in dealing with employees throughout all levels of the organization,
2. Span of control is the number of people managed effectively by a single superior in an organization.
3. Line authority is the direct authority which a superior exercise over a number of subordinates to carry out orders and instructions. OR the power given to someone in a supervisory position to mandate actions by subordinates.
4. Departmentalization is an organizational structure that separates people into groups, or departments, based on a particular set of criteria OR Departmentalization (or departmentalization) *refers to the process of grouping activities into departments.*

**SOLUTION THREE**

(a) Advantages of micro-designed jobs in resolving frustrations include:

1. Little training – as a job is divided up into the smallest number of sequential tasks possible..
2. Replacement - Especially where there is labour turnover that is high, as unskilled replacements can be found and trained to do the work in a very short time.
3. Flexibility – Since the skill required is low, workers can be shifted from one task to another very easily.
4. Control – If tasks are closely defined and standard times set for completion, production is easier to predict and control.
5. Quality – Standardization of work into simple tasks means that quality is easier to predict.

(b) The ways in which a job may be enriched include:

1. Giving a job holder decision-making tasks of a higher order
2. Giving the employee greater freedom to decide how the job should be done.
3. Encouraging the employees to participate in the planning decisions of their superiors.
4. Giving the employees regular feedback.

(c) Ways in which employees of the company may be motivated by the personal development plan include:

1. Recognize the experience and knowledge that they have acquired, and monitor their progress. The plan should record evidence of achievement, training courses attended and career development.
2. Take responsibility for their own learning and development.
3. Define their needs for further training and development, in consultation with their supervisors.
4. Understand their personal weaknesses, and consider how to improve.
5. Provide evidence of their strengths, so that they can discuss their achievements with their supervisor.

**SOLUTION FOUR**

(a) Corporate Governance is a set of relationships between a company's directors, its shareholders and other stakeholders. It provides a structure through which the objectives of the company are set

(b) The 6 principles of Good Corporate Governance are:

1. Probity/Honest
2. Integrity
3. Independence
4. Fairness
5. Responsible
6. Accountability
7. Transparency

(c) The Fayol's managements functions are:

1. Planning –This involves deciding objectives and course of action to achieve them.
2. Organizing – Establishing structure of structure which need to be performed to achieve the organizations' objectives.
3. Commanding/Directing – Giving instructions to subordinates to carryout tasks for which the manager has authority.
4. Co-coordinating – harmonizing the goals and activities of individuals and groups within the organization in achieving the set objectives.
5. Controlling – Measuring and correcting the activities of individuals and groups to ensure that their performance is leading to achievement of the set objectives without any deviations.

**SOLUTION FIVE**

(a) People establish partnership because of the following reason

1. Shared short-term and long-term values.
2. Complementary or combined skills, experience, knowledge, finances or assets
3. Strategic Advantage
4. increase in Customer Base
5. generate Stable Revenue
6. Less formal with fewer legal obligations
7. Better decision-making
8. More partners, more capital

(b) Identify the Potential Issues (ROADBLOCKS) Arising from a Partnership

1. Lack of inspiration or vision
2. Lack of defined purpose or lack of mutual understanding of purpose
3. Domination by one partner or competition between partners
4. Lack of commitment among all partners
5. Lack of communication
6. Lack of support from those with decision-making power
7. Philosophical differences
8. Lack of participation from key stakeholders
9. Insufficient understanding of roles and responsibilities
10. Overly burdensome financial and time commitments

(c) The document is called the partnership agreement (partnership deed) which sets out the purpose and objectives of business, the way profits will be shared between partners, the rights and obligation of each partner.

**SOLUTION SIX**

(a) Illustrate six (6) Qualities of a Good leader

1. Honesty and integrity
2. Humility
3. Inspire others
4. Confidence
5. Good communicator
6. Ability to make decisions
7. Passion and highly committed
8. Accountability
9. Empathy
10. Highly creative and innovative
11. Resilience
12. Delegation and empowerment
13. Emotional intelligence
14. Transparency
15. Vision and Purpose

(b) Compare and contrast Leadership and Management

1. Management is viewed as being reactive while Leadership is proactive.
2. While managers lay down the structure and delegates authority and responsibility, leaders provides direction by developing the organizational vision and communicating it to the employees and inspiring them to achieve it.
3. While management includes focus on planning, organizing, staffing, directing and controlling; leadership is mainly a part of directing function of management. Leaders focus on listening, building relationships, teamwork, inspiring, motivating and persuading the followers.
4. While a leader gets their authority from his followers, a manager gets their authority by virtue of his position in the organization.
5. While managers follow the organization's policies and procedure, the leaders follow their own instinct.
6. Management is more of science as the managers are exact, planned, standard, logical and more of mind. Leadership, on the other hand, is an art. In an organization, if the managers are required, then leaders are a must/essential.
7. While management deals with the technical dimension in an organization or the job content; leadership deals with the people aspect in an organization.

8. While management measures/evaluates people by their name, past records, present performance; leadership sees and evaluates individuals as having potential for things that can't be measured, i.e., it deals with future and the performance of people if their potential is fully extracted.
9. Management is based more on written communication, while leadership is based more on verbal communication.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

CERTIFICATE IN ACCOUNTANCY

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 13 SEPTEMBER 2023

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: One (1) compulsory scenario question.
   Plus Four (4) scenario questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A – (Compulsory)**

**Attempt all ten (10) multiple choice questions**

**QUESTION ONE**

Each of the following sub questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks are indicated against each question.

1.1 To add two (2) cells (A1 and A2) together you use the formulae

A. A1+ A2
B. =A1+A2
C. sum(A1:A2)
D. add(A1:A2)

(2 marks)

1.2 Which of the following is **not** part of turning data into information?

A. Planning
B. Reporting
C. Interpretation
D. Data evaluation

(2 marks)

1.3 The area that shows open applications in MS Windows is known as …

A. Task bar
B. Title bar
C. Status bar
D. Document bar

(2 marks)

1.4 Transaction Processing System (TPS) are used for routine tasks where transactions must be processed so that operations can continue. Which one is NOT a TPS?

A. Invoice Billing system
B. Payroll and Tax payment system
C. Inventory Control system
D. Digital filing system

(2 marks)

1.5 Bits are grouped together in groups of eight to form ______

A. Kilobytes

B. Gigabytes

C. Bytes

D. Megabytes (2 marks)

1.6 What does the letter **'A'** stand for in the mnemonic **PASS**?

A. Accurate
B. Audience
C. Attribute
D. Appropriately (2 marks)

1.7 Which of the following is the best definition of the term medium?

A. It is a term used to calculate averages to assess production at a given place of work.

B. It means a communication element that channels messages

C. It is one of the elements of communication that refers to oral, written or visual means of relaying information

D. It simply means the element of communication that involves the interaction of key Players. (2 marks)

1.8 Which of the following diagrams is used to show comparison between work which has been scheduled and work which has been accomplished in relation to time?

A. Gantt chart

B. Bar Chart

C. Line graph

D. Pie chart (2 marks)

1.9 Although a subject line may not be compulsory in a letter, it should be included in an email because if not included, the recipient may think that it is____________________.

A. SPAM
B. Not worth reading
C. The message is not important
D. Not urgent (2 marks)

1.10 Horizontal communication is the exchange of information_______________________

A. among peers

B. between managers and subordinates

C. among all workers across levels

D. between middle managers and their superiors (2 marks)

**[Total: 20 Marks]**

## SECTION B

**Question TWO (2) in this section is compulsory and must be attempted.**

**Attempt any three (3) questions from the remaining four (4).**

### QUESTION TWO- (COMPULSORY)

You have been working for FINTEC Enterprise as an Assistant Accountant for five years. As the internal Auditor was carrying out routine inspection of your organization's financial accounts, it was discovered that most payment batches had missing documents such as invoices, Purchase Requisition Notes and Goods Received Notes, among others. Noticing the seriousness of the anomaly, the Finance Manager instructs you to investigate the cause of the missing documents and requests you to submit a formal report. Some of your findings in your research include lack of filing skills and insufficient filing facilities.

**Required:**

Write a short report highlighting the major findings of your investigations and recommendations. **[Total: 20 Marks]**

### QUESTION THREE

(a) Segregation of duties is an internal control designed to prevent error and fraud by ensuring that at least two individuals or more are responsible for the separation parts of any task.

Outline five (5) reasons a business organization would consider the need for segregation of duties. (10 marks)

(b) Your supervisor at CK Accounting Firm where you are working as an intern has asked you to make some changes to the current company profile. The company profile will thereafter need to be printed in readiness for the soon upcoming board meeting.

(i) Differentiate between left justification and right justification. (2 marks)

(ii) List and explain four (4) main tab stops you would use to space the text across the page. (8 marks)

**[Total: 20 Marks]**

**QUESTION FOUR**

(a) State the difference between hardware and software. (4 marks)

(b) A computer monitor is a display unit. All the data and information such as text and images are displayed on the monitor. This is also known as a Visual Display Unit.
Outline the four (4) common types of monitors that can be used in a computer system. (8 marks)

(c) Databases are important to an accounting information system as every accounting information system need to store their data for various reasons.
State four (4) reasons AIS needs a database. (8 marks)

**[Total: 20 Marks]**

**QUESTION FIVE**

Mr. Banda, the Finance Manager and Mrs. Kasoso, the Assistant Accountant are scheduled to attend formal and informal meetings at different times.

For clarity purposes, the Finance Manager explained the differences between two types of meetings to junior staff. The differences that he gave were that formal meetings strictly adhere to established rules and regulations governing meetings while informal meetings are not restricted by the some rules and regulations.

He also explained some rules and regulations that govern formal meetings as well as reasons for holding regular meetings in organisations.

**Required:**

(a) State any two (2) examples of formal meetings. (2 marks)

(b) Outline any five (5) rules and regulations governing formal meetings. (10 marks)

(c) State any four (4) reasons why holding meetings regularly may be good for an organisation. (8 marks)

**[Total: 20 Marks]**

**QUESTION SIX**

At JMK limited, there is always a flow of information among staff, either from senior or junior staff. As a result a two-way process is achieved, often shown as a cycle. Signals or messages are sent by the communicator and received by the target recipient, who sends back some form of confirmation that the message has been received and understood.

**Required:**

(a) What does the phrase **two-way process** mean? (2 marks)

(b) Explain any six (6) major components of the communication cycle. (12 marks)

(c) State any three (3) challenges a communicator would face when sending a message. (6 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## CA1.6 BUSINESS COMMUNICATIONS SUGGESTED SOLUTIONS

### SOLUTION ONE

1.1 B

1.2 B

1.3 A

1.4 D

1.5 C

1.6 B

1.7 C

1.8 A

1.9 A

1.10 A

**SOLUTION TWO**

**REPORT ON THE MISSING FINANCIAL DOCUMENTS AT FINTECH FINANCIAL SOLUTIONS**

**1.0 Terms of Reference**

This reports highlights some of the causes of missing financial documents as requested by the Finance Manager on (any date during examination period). As the internal auditor was carrying out some of the routine inspections of the organization's accounts, it was discovered that most payment batches had missing documents. It was against this back ground that this report was prepared to highlight procedures, findings, conclusions and recommendations in order to resolve this problem

2.0 **Procedure**

i. interviews with members of the Accounts

ii. Observation of the filing system

3.0 **Findings**

i. Lack of filing skills- Members of the department lacked filing skills as a result most documents were misplaced. It was also

discovered that most of the staff were not trained in records management and

therefore, lacked filing skills.

ii. Lack of filing facilities- It was observed that the department had inadequate box files and filing cabinets. Hence, members put documents anywhere. The

electronic filing system that was used was also not up to date.

4.0 **Conclusion**

The main courses of missing documents were as a result of lack of filing skills as most of the staff were not trained in records management. There were also no filing facilities and that the electronic filing system was not up to date.

5.0 **Recommendations.**

i Frequent auditing of the department

ii. Members need to undergo training in Records Management iii Need for the organization to invest in infrastructure that will resolve the issue of lack of filing facilities

**Signature**

**Name**

**Designation**

**Date**

**SOLUTION THREE**

(a) **Segregation of duties**

1. This prevents one person from gaining sole or excessive control over finances that may lead to fraudulent or criminal activities
2. Engaging in corporate espionage
3. Launching of revenge campaign due to perceived unfair dismissal or mistreatment
4. Falsifying financial records to satisfy stakeholders
5. To prevent unauthorized activities to be done maliciously or accidentally
6. This reduces the possibility of inventory theft or incorrect reporting sales

(b) (i) **Left Justification -** the left side of the text even and aligned, while the right side remains jagged

**Right Justification** – the right margin text is even and the left margin is left jagged

(ii) Main tab stops used to space text across the page

1. **Left tab stop**: text jumps to the tab stop and then shows to the right of tab stop
2. **Centre tab stop**: text centred on this tab stop
3. **Right tab stop**: text jumps to the tab stop and then will show to the left of the tab stop
4. **Decimal tab stop**: text jumps to the tab stop and then will show to the left of the tab stop. Decimal places are aligned consistently on each line.
5. **Bar Tab Stop**: it puts a vertical bar on the document which is printable

**SOLUTION FOUR**

(a) Difference between Hardware and Software

1. Hardware are physical, tangible devices used for input or output, that provide the structure of a system e.g monitor, keyboard, mouse, printer. etc
2. Software is the set of instructions or programs that are used to operate and execute specific tasks, e.g operating systems and application software

(b) Common types of monitors that can be used in a computer system

1. **CRT monitor** – it has a cathode ray tube which produces images in form of video signals
2. **LCD monitor** – it's a flat panel screen that uses liquid crystal display technology to produce images on the screen
3. **LED monitor** – They are and advanced version of LCD monitor, which uses cold cathode florescent light to backlight the display
4. **Plasma monitor** – uses plasma display technology with high resolution and good picture/image quality

(c) Four (4) reasons why AIS needs a database

1. Storing of important information
2. Managing large data files with efficiency
3. To make data secure and reliable
4. Less prone to error
5. Storing of customer data
6. Tracking of income and expenses
7. Record of assets and liabilities
8. Easier for backup and recovery

## SOLUTION FIVE

(a) **Examples of formal meetings**

1. Annual General Meeting
2. Board Meeting
3. Local council meeting
4. Statutory meeting
5. Departmental meeting

(b) **Rules governing formal meetings**

1. Attendance rights
2. Adequate notice (specific timeframe within which a notice is given)
3. Quorum
4. The frequency of meeting
5. Binding power of decisions made upon participants
6. Elections of office bearer
7. Specified types of meeting documents required each time a meeting is held.

(c) **Reasons for holding meetings**

1. Problem solving
2. Decision-making
3. Provides an opportunity to air out grievances
4. Coordinating activities
5. Exchange of information
6. Staff appraisal
7. Receiving updates on activities
8. Control of resources of the organization
9. Efficient ways of running the organization.

**SOLUTION SIX**

(a) **Tow-way Process**

Both the sender and the receiver have to participate effective for communication to be successful.

(b) **Components of communication**

1. sender: creates and sends the message
2. message: the idea being sent to the receiver and encoded correctly
3. Medium: the nature of the message: oral. Written or graphical
4. Channel: the means used to send the message
5. Receiver: the target recipient of the message
6. Feedback: the response given to the message sent

(c) **Challenges of sender**

1. Selecting the medium
2. Cost
3. Selecting the channel
4. Language to use
5. Emotions
6. Physical noise.
7. Inability to communicate effectively due to status.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

# CA 2.1: FINANCIAL REPORTING

MONDAY 11 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A**

**This question is compulsory and must be attempted.**

**QUESTION ONE**

Peace holds investments in two entities: Love and Joy. The draft statements of financial position of the three entities at 31 March 2022 were as follows:

| | Peace K'000 | Love K'000 | Joy K'000 |
|---|---|---|---|
| **Assets** | | | |
| Non-current Assets | | | |
| Investment property | 200,000 | 200,000 | 200,000 |
| Property, Plant and Equipment | 205,000 | 100,000 | 130,000 |
| Investments | 517,000 | 45,000 | - |
| Total Non-current Assets | 922,000 | 345,000 | 330,000 |
| Current Assets | | | |
| Inventories | 135,000 | 96,000 | 81,000 |
| Trade Receivables | 150,000 | 102,000 | 105,000 |
| Cash and Cash Equivalents | 30,000 | 12,000 | 24,000 |
| | 315,000 | 210,000 | 210,000 |
| Total Assets | **1,237,000** | **555,000** | **540,000** |
| **Equity and Liabilities** | | | |
| Equity Shares of K1 each | 360,000 | 240,000 | 180,000 |
| Retained Earnings | 589,000 | 132,000 | 165,000 |
| Total Equity | 949,000 | 372,000 | 345,000 |
| Non-current Liabilities | | | |
| 25% Loan Notes | 120,000 | 75,000 | 90,000 |
| Deferred Tax | 60,000 | 24,000 | 30,000 |
| | 180,000 | 99,000 | 120,000 |
| Current Liabilities | | | |
| Trade and Other Payables | 90,000 | 66,000 | 60,000 |
| Short-term Borrowings | 18,000 | 18,000 | 15,000 |
| | 108,000 | 84,000 | 75,000 |
| Total Equity and Liabilities | **1,237,000** | **555,000** | **540,000** |

**Additional information**

(1) On 1 October 2021, Peace paid K117 million for 30% of the equity shares of Joy and this investment gave Peace significant influence over Joy. The retained earnings of Joy on 1 October 2021 were K180 million. Since date of acquisition, the investment in Joy has not suffered any impairment. You are to ignore any deferred tax implications on this investment.

(2) On 1 April 2021, Peace purchased 180 million shares in Love for an immediate cash payment of K300 million, when the retained earnings of Love were K105 million and the fair value of Love's equity was K1.70 per share. Under terms of this business combination, Peace was to make an additional payment of K45 million to former shareholders of Love on 31 March 2023. At the date of Love's acquisition, Peace could have borrowed funds at an annual interest rate of 8%. The statement of financial position of Peace includes this investment at the immediate cash consideration paid of K300 million plus the due diligence costs (see note 4).

Directors of Peace carried out a fair value exercise on identifiable assets and liabilities of Love at 1 April 2021 and the following matters arose:

- Property having a carrying value of K120 million (depreciable amount K72 million) had a fair value of K180 million (depreciable amount K108 million) and the estimated future economic life of the depreciated part of property at 1 April 2021 was 30 years.
- Plant and equipment having a carrying value of K153 million had a fair value of K162 million with an estimated future economic life of 3 years as at 1 April 2021. The fair value adjustments have not been reflected in draft financial statements of Love.

(3) In consolidated financial statements, fair value adjustments should be regarded as temporary differences for purposes of computing deferred tax at an applicable rate of 30%.

(4) Peace incurred K100 million directly attributable (due diligence) costs on acquisition of love. This amount was included in carrying amount of the investment in Love in Peace's own statement of financial position.

(5) On 1 April 2021, Peace sold an item of plant to Love for K5 million. Peace originally bought the plant from Kindness for K6 million, and Peace had provided accumulated

depreciation of K2.2 million up to the date of sale. Peace considered the plant to have a remaining useful life of five (5) years at the date of transfer. Ignore deferred tax on this transaction.

(6) Peace has a policy of valuing the non-controlling interests at fair value at the date of acquisition. For this purpose, the share price of Love at this date must be used.

(7) Neither Love nor Joy issued shares in the post-acquisition period. Further, no dividends were paid during the year by any of the companies.

(8) The investment in Love's draft financial statements of K45 million is a strategic equity investment in Patience, a key supplier. This investment gives Love neither control nor significant influence over the investee. The investment in Patience is correctly classified as fair value through other comprehensive income and on 1 April 2021, it was included in the financial statements of Love at its fair value of K45 million. The fair value of this investment at 31 March 2022 was K51 million. Fair value gain should be regarded as temporary differences for purposes of computing deferred tax at an applicable rate of 30%.

(9) The inventories of Love and Joy at 31 March 2022 included components purchased from Peace during the year at a cost of K30 million and K36 million respectively. Peace generated a gross profit margin of 25% on the supply of these components. Ignore any deferred tax implications of the information in this note.

(10) Goodwill on acquisition of Love has not suffered any impairment since 1 April, 2021.

(11) The trade receivables of Peace included K15 million receivable from Love and K12 million receivable from Joy in respect of intercompany trading; while trade payables of Love and Joy do not include any amounts payable to Peace. This is because on 29 March 2022, Love and Joy paid K15 million and K12 million respectively to Peace to eliminate their balances. Peace only received and recorded these payments on 2 April 2022.

**Required:**

(a) Prepare the Consolidated Statement of Financial Position of Peace Group at 31 March 2022. (30 marks)

(b) Explain why it is necessary to eliminate unrealised profits when preparing group financial statements. (3 marks)

(c) Explain why consolidated financial statements are useful to the users of financial statements (as opposed to just the parent company's separate (entity) financial statements). (3 marks)

(d) IFRS 3 permits a non-controlling interest at the date of acquisition to be valued by one of two (2) methods:

(i) at its proportionate share of the subsidiary's identifiable net assets; or

(ii) at its fair value.

**Required:**

Explain the difference that the accounting treatment of these alternative methods could have on the consolidated financial statements, including where consolidated goodwill may be impaired. (4 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this Section. Attempt any THREE (3) questions.**

**QUESTION TWO**

The following trial balance relates to Kaloto Ltd, a Public limited liability company as at 31 March 2023.

| | K'000 | K'000 |
|---|---|---|
| 4% loan note repayable in 2026 (issued in 2022) | | 15,000 |
| Investment income | | 1,800 |
| Ordinary shares of 50 ngwee each | | 10,000 |
| Share premium | | 81,400 |
| Retained earnings at 1.4.2022 | | 34,900 |
| Revenue (note iv) | | 309,400 |
| Distribution costs | 51,400 | |
| Administrative expenses | 34,100 | |
| Purchases | 166,900 | |
| Loan note interest paid | 600 | |
| Land and buildings cost (includes K6m for land) (note i) | 38,000 | |
| Land and buildings: accumulated depreciation at 1.4.2022 | | 6,400 |
| Plant and equipment: cost (note ii) | 25,800 | |
| Plant and equipment: accumulated depreciation 1.4.2022 (note iii) | | 12,600 |
| Investment property 1.4.2022 | 54,800 | |
| Interim dividends paid | 600 | |
| Inventories 1.4.2022 | 44,400 | |
| Deferred taxation (note x) | | 7,200 |
| Trade and other receivables | 46,500 | |
| Lease rental paid (note viii) | 8,000 | |
| Trade and other payables | | 28,700 |
| Bank | | 6,700 |
| Suspense (note xi) | | 7,500 |
| Financial asset (note vi) | 50,500 | |
| | 521,600 | 521,600 |

**The following notes are relevant:**

(1) The land and buildings were acquired on 1 April 2012 and revalued for the first time on 1 April 2022 to K75.6 million (with K10 million relating to land). The revaluation is yet to be reflected in the accounts. Kaloto makes no transfer to retained earnings of any revaluation surplus.

(2) A piece of plant (other than leased plant) with a carrying amount of K2.4 million on 31 March 2023 (after depreciation charge for the year was applied) was tested for impairment on 31 March 2023. Results reviewed that its fair value less costs to sell were K1.7 million. On the same date, the asset was expected to generate annual net income of K0.4 million for the next five (5) years at which point the asset would be

disposed of for K0.42 million. An appropriate discount rate is 14%. Five (5) year discount factors at 14% are:

| Simple | Cumulative |
|---|---|
| 0.519 | 3.433 |

(3) Depreciation of all plant and equipment to be included as cost of sales and that of buildings as administration cost. Depreciation on non current assets to be provided as follows:

- Buildings straight line over 50 years as at the date of purchase.
- Plant and equipment 20% reducing balance method (other than leased plant).

(4) Included in Revenue is K39 million cash sales made by Kaloto Ltd while acting as an agent for Pole. The agency agreement provides for a 10% of the sales as commission to Kaloto Ltd. By 31 March 2023, Kaloto Ltd had remitted to Pole K35.1 million included in purchases.

(5) Closing inventories at 31 March 2023 were valued at K37 million.

(6) The financial asset is an equity instrument whose fair value was K60.50 million on 31 March 2023. There were no purchases or disposals of any of these investments during the year. Kaloto has not made an election in accordance with *IFRS 9, financial instruments* to classify an instrument as a FVTOCI instrument.

(7) Kaloto Ltd issued its 4% loan notes on 1 April 2022 at their nominal value of K15 million. The loan notes have an effective interest rate of 8%.

(8) On 1 April 2022, Kaloto Ltd acquired an item of plant under a three (3) year lease agreement at an implicit interest rate of 12% per annum. The lease agreement requires annual payments of K8 million per annum payable on 31 March each year. The present value of future lease payments on inception of the lease is K19.215 million. The lease does not provide for transfer of legal ownership of the leased asset to the lessee. At 1 April 2022, the useful life of the plant was five years. The lease payment in the trial balance is the first lease rental of the three rentals that was made on 31 March 2023. No any other entry has yet been made about this leased plant by Kaloto Ltd.

(9) The fair value of investment property at 31 March 2023 was K57.2 million.

(10) A provision for current income tax for the year ended 31 March 2023 of K2.50 million is required. Further, deferred tax is to be increased by K1.2 million.

(11) Interim dividends of 3 ngwee per share were paid on 20 September 2022. No final dividend was declared until 20 June 2023 for the year ending 31 March 2023. 5 million new shares were issued on 15 March 2023 at a premium of K1. These new shares have been recorded in the bank account and suspense account.

**Required:**

(a) Prepare the statement of profit or loss and other comprehensive income for Kaloto for the year ended 31 March 2023. (9 marks)

(b) Prepare a statement of financial position for Kaloto as at 31 March 2023.

(11 marks)

**[Total: 20 Marks]**

## QUESTION THREE

Kala Plc. is a publicly listed company in the transport sector. It provides taxi and bus services to members of the public in Lusaka. Recently, management have resolved to extend its services to other provinces and a strategy to finance drivers with loans in form of taxis and buses has been developed. Kala has approached a local bank for financing the acquisition of taxis and buses. As a result, the approached bank has requested for a statement of cash flows for the past year ending 31 March 2023 for Kala Plc.

Details of its statements of financial position as at 31 March 2023 and 31 March 2022 are shown below together with other relevant information:

**Statement of Financial position as at:**

| | **31 March 2023** | **31 March 2022** |
|---|---|---|
| **Non current assets:** | **K'000** | **K'000** |
| Property Plant and equipment | 2,200 | 1,900 |
| Licenses | 1,000 | 1,275 |
| | 3,200 | 3,175 |
| **Current Assets:** | | |
| Trade receivables | 2,895 | 1,980 |
| Interest receivables | 13 | 8 |
| Short-term deposits | 80 | 300 |
| Bank | 37 | 187 |
| Total current assets | 3,025 | 2,475 |
| Total Assets | 6,225 | 5,650 |
| **Equity and Liabilities:** | | |
| Equity shares of K1 each | 750 | 500 |
| Share premium | 150 | Nil |
| Revaluation reserve | 280 | 112 |
| Retained earnings | 2,745 | 2,912 |
| Total equity | 3,925 | 3,524 |
| **Non current liabilities:** | | |
| 12% loan note | 400 | 375 |
| Deferred tax | 225 | 188 |
| Total non current liabilities | 625 | 563 |
| **Current liabilities:** | | |
| Trade payables | 1,325 | 1,288 |
| Bank overdraft | 312 | Nil |
| Taxation | 38 | 275 |
| Total current liabilities | 1,675 | 1,563 |
| Total equity and liabilities | 6,225 | 5,650 |

**The following additional information is available:**

(1.)The draft statement of profit or loss for the year ended 31 March 2023 is as follows:

| | **K'000** |
|---|---:|
| Operating loss | (80) |
| Interest Receivable | 30 |
| Finance costs | (60) |
| Loss before tax | (110) |
| Net income tax charge (see note below)* | (3) |
| Loss for the year | (113) |

*Note that the net income tax charge comprises of current tax refund of K35,000 and an increase in deferred tax of K38,000.

(2.)Property, Plant and Equipment

| | **Year ending 31 March 2023** | | **Year ending 31 March 2022** | |
|---|---:|---:|---:|---:|
| | Land and Building | Plant and equipment | Land and Building | Plant and equipment |
| | K'000 | K'000 | K'000 | K'000 |
| Cost/valuation b/f | 1,500 | 1,100 | 1,200 | 1,113 |
| Depreciation b/f | (30) | (370) | (200) | (263) |
| Carrying amount c/f | 1,470 | 730 | 1,050 | 850 |

Kala Plc revalued the carrying amount of its land and buildings by an increase of K175,000 on 1 April 2022.

On 31 March 2023, Kala Plc transferred K7,000 from the revaluation reserve to retained earnings representing the realization of the revaluation reserve due to the depreciation of buildings. Buildings depreciation charge for the year ended 31 March 2023 was K30,000. During the year, Kala Plc. acquired new plant at a cost of K150,000 and sold some old plant for K37,500 at a loss of K30,000.

(i) There were no acquisitions or disposals of licenses.

(ii) The short-term deposits meet the definition of cash equivalents.

(iii) Dividends of K61,000 were paid during the year.

**Required:**

Prepare the statement of cash flows for Kala Plc for the year ended 31 March 2023.

(20 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

The main objective of IAS 12 *Income Taxes* is to prescribe the accounting treatment for income taxes. The main issue the standard addresses is how to account for current and future consequences of the recovery/settlement of the carrying amount of assets/liabilities recognized in the entity's financial statements.

**Required:**

(a) Briefly explain 'temporary differences' in accordance with IAS 12 *Income Taxes.* (2 marks)

(b) Distinguish between taxable temporary differences and deductible temporary differences giving an example of each. (8 marks)

(c) Mulusa Plc is listed on the Securities Exchange Market and the company is preparing financial statements for the year to 31 March 2023. The following situations have arisen for Mulusa and your guidance is required.

**Situation 1**

On 1 April 2022, Mulusa Plc had an underprovision of current tax amounting to K16 million in respect of the year ending 31 March 2022.

The company has estimated its provision for the current tax liability for the year to 31 March 2023 to be K67 million.

**Situation 2**

On 1 April 2022, Mulusa Plc had temporary taxable differences amounting to K260 million.

On 31 March 2023, the company had the temporary taxable differences amounting to K200 million, excluding the effects of revaluation below:

On 31 March 2023, Mulusa Plc revalued an item of plant that had a carrying amount of K360 million to K400 million.

The company's income tax rate is 30%.

**Required:**

Explain and quantify the effect of the above two (2) situations on the financial statements of Mulusa Plc for the year ended 31 March 2023. (10 marks)

**[Total: 20 Marks]**

**QUESTION FIVE**

The IASB conceptual framework for financial reporting is a frame of reference for financial reporting. It requires among other things that financial statements are prepared based on underlying assumptions, and meeting appropriate qualitative characteristics.

**Required:**

(a) State the main objective of general purpose financial reporting. (2 marks)

(b) Define the five (5) elements of financial statements. (10 marks)

(c) Briefly explain the following qualitative characteristics of financial information:

(i) Understandability
(ii) Faithful representation
(iii) Relevance
(iv) Comparability

(8 marks)
**[Total: 20 Marks]**

**END OF PAPER**

# CA2.1 FINANCIAL REPORTING SUGGESTED SOLUTIONS

## SOLUTION ONE

(a) **Peace Group**

**Statement of Financial Position as at 31st March 2022**

| **Assets** | **K'000** | **K'000** |
|---|---|---|
| **Non-current Assets** | | |
| Investment property (200, 00 +200, 000) | 400,000 | |
| PPE (205 + 100 + 58.8 + 6(w2) -0.960 w10) | 368,840 | |
| Goodwill (w3) | 47,280 | |
| Investment in Associate (w7) | 109,800 | |
| Financial asset | 51,000 | |
| | | 976,920 |
| **Current Assets** | | |
| Inventory (135 + 96 - 7.5) | 223,500 | |
| Trade Receivables (150 + 102 - 15) | 237,000 | |
| Cash and Cash Equivalents (30 + 12 +15(CIT)) | 57,000 | |
| | | 517,500 |
| **Total Assets** | | **1,494,420** |
| **Equity and Liabilities** | | |
| **Equity** | | |
| Equity Shares of K1 each | 360,000 | |
| Retained Earnings (w5) | 488,298 | |
| Other components of equity (w6) | 3,150 | |
| | | 851,448 |
| Non-Controlling Interest (w4) | | 109,065 |
| Total Equity | | 960,513 |
| **Non-current Liabilities** | | |
| 25% Loan Notes (120 + 75) | | 195,000 |
| Deferred tax (60 + 24 + 1.8(w2) + 19.44(w8)) | | 105,240 |
| Current Liabilities | | |
| Trade and other Payables (90 + 66) | | 156,000 |
| Deferred Consideration (38.58 + 3.087) | | 41,667 |
| Short term borrowings (18 + 18) | | 36,000 |
| Total Equity and Liabilities | | **1,494,420** |

(b) Unrealised profits arise when group companies trade with each other. In their own individual company accounts profits and losses will be claimed on these transactions, and goods bought from a fellow group company will be recorded at their invoiced cost by the purchaser. However, consolidated accounts are drawn up on the principle that a group is a single economic entity. From a group point of view, no transaction occurs when goods are traded between group companies, and no profits or losses arise. Revenue and profits will only be claimed when the goods are sold onto a third party outside of the group.

(c) Usefulness of consolidated financial statements.
The main reason for preparing consolidated accounts is that groups operate as a single economic unit and it is not possible to understand the affairs of the parent company without taking into account the financial position and performance of all companies it controls. The directors of the parent company should be held fully accountable for all the money they have invested on the shareholders behalf. The parent company's individual financial statements only show the original cost of the investment and dividends received from any subsidiaries, not a full picture. This hides the true value and nature of the investment in the subsidiary, and could be used to manipulate the reported results of the parent. In addition goodwill can only be quantified and reported if consolidated accounts are prepared and fair value of assets controlled by the group is only taken into account through consolidation and thereafter non-controlling interest is taken into account
Further, without consolidation, assets and liabilities of the subsidiary are camouflaged. Hence, consolidation reveals the underlying performance and profitability of the group as a whole.

(d) IFRS 3 allows (as an option) a non-controlling interest to be valued at its proportionate share of the acquired subsidiary's identifiable net assets; this carries forward the only allowed method in the previous version of this Standard. Its effect on the statement of financial position is that the resulting carrying value of purchased goodwill only relates to the parent's element of such goodwill and as a consequence the non-controlling interest does not reflect its share of the subsidiary's goodwill. Some commentators feel this is an anomaly as the principle of a consolidated statement of financial position is that it should disclose the whole of the subsidiary's assets that are under the control of the parent (not just the parent's share). This principle is applied to all of a subsidiary's other identifiable assets, so why not to goodwill?.

Any impairment of goodwill under this method would only be charged against the parent's interest, as the non-controlling interest's share of goodwill is not included in the consolidated financial statements.

The second (new) method of valuing the non-controlling interest at its fair value would (normally) increase the value of the goodwill calculated on acquisition. This increase reflects the non-controlling interest's ownership of the subsidiary's goodwill and has the effect of 'grossing up' the goodwill and the non-controlling interests in the statement of financial position (by the same amount). It is argued that this method reflects the whole of the subsidiary's goodwill/premium on acquisition and is thus consistent with the principles of consolidation. Under this method any impairment of the subsidiary's goodwill is charged to both the controlling (parent's share) and non-controlling interests in proportion to their holding of shares in the subsidiary.

**Workings**

**1. GROUP STRUCTURE:s**

Group $\frac{180}{240} x100\% = 75\%$

NCI $\frac{60}{240} x100\% = 25\%$

100%

2. Net Assets Table - Love

| | 1 April 2021 | 31 March 2022 |
|---|---|---|
| Share capital | 240,000 | 240,000 |
| Retained earnings: | | |
| Per accounts of Love | 105,000 | 132,000 |
| Property adjustment (w8) | 60,000 | 58,800 |
| Plant & equipment adjustment (w8) | 9,000 | 6,000 |
| Deferred tax on FV adjustment | (20,700) | (19,440) |
| Revaluation of FVTOCI Investment | Nil | 4,200 |
| Net assets for consolidation | 393,300 | 421,560 |

Post acquisition profits are K28.26 million (K421.56 million - K393.3 million). Of this amount, K4.2 million is taken to other reserves and K24.06 million (K28.2 million - K4.2 million) taken to retained earnings.

3. **Goodwill in Love**

| | K'000 | K'000 |
|---|---|---|
| Consideration transferred | | 300,000 |
| Deferred consideration (45 million/$1.08^2$) | | 38,580 |
| Fair value of NCI (60,000 x K1.7) | | 102,000 |
| Net assets acquired at 1 April 2021 | | (393,300) |
| Goodwill to CSOFP | | 47,280 |

4. **Non Controlling Interest (NCI) in S**

| | |
|---|---|
| FV at date of acquisition (w2) | 102,000 |
| NCI's Share of PAP (i.e. @ 25% × K28.26 million) | 7,065 |
| | 109,065 |

5. **Group Retained Earnings**

| | |
|---|---|
| Peace per question | 589,000 |
| Due diligence costs | (100,000) |
| Unwinding of discount on deferred consideration (K38.58x8%) | (3,087) |
| Love (75%xK24.06 million, w1) | 18,045 |
| Joy (30%x(K165 million-K180 million)) | (4,500) |
| Net adjustment on the transfer of a plant (w10) | (960) |
| Unrealised profits-Love (K30 million x 25%) | (7,500) |
| Unrealised profits-Joy (K36 million x 25% x 30%) | (2,700) |
| | 488,298 |

6. **Other components of equity**

| | |
|---|---|
| 75% x K4.2 million revaluation of FVTOCI asset | 3,150 |

7. **Investment in Associate (Joy)**

| | |
|---|---|
| Cost of investment in Associate | 117,000 |
| Share of post acquisition loss (w5) | (4,500) |
| Unrealised profits | (2,700) |
| | 109,800 |

8. **Deferred tax on temporary differences**

| Fair value adjustments | 1 April 2021 | 31 March 2022 |
|---|---|---|
| Land adjustment | 60,000 | 58,800 |
| Plant and equipment adjustment | 9,000 | 6,000 |
| Net taxable differences | 69,000 | 64,800 |
| Related deferred tax at 30% | 20,700 | 19,440 |

9. **REVALUATION OF AFS INVESTMENT**

| | **K'000** |
|---|---|
| Fair value at acquisition | 51,000 |
| Fair value at reporting date | (45,000) |
| | 6,000 |
| Less deferred tax ( @ 30% x 6,000) | (1,800) |
| | **4,200** |

10. **Plant transfer**

| | | **K'000** |
|---|---|---|
| URP on plant transfer ((5, 000 – (6,000- 2, 200)) | (1, 200) | |
| Depreciation adjustment (1, 200 /5) | 240 | |
| | | **(960)** |

**SOLUTION TWO**

(a) **Kaloto Ltd statement of profit or loss and other comprehensive income for the year ended 31 March 2023**

| | K'000 |
|---|---:|
| Revenue (309,400 – 35,100) W5 | 274,300 |
| Cost of sales (W7) | (148,945) |
| Gross profit | 125,355 |
| Investment income (1800+2400 W1+10,000 W2) | 14,200 |
| Administrative expenses (W7) | (35,740) |
| Distribution costs (W7) | (51,400) |
| Operating profit | 52,415 |
| Finance cost (1,200 W3 + 2,306 W4) | (3,506) |
| Profit before tax | 48,909 |
| Income tax (2,500 + 1,200 W8) | (3,700) |
| Profit for the year | 45,209 |
| Other comprehensive income: | |
| Revaluation surplus (W6) | 44,000 |
| Total comprehensive income | 89,209 |

(b) **Kaloto Ltd statement of financial position as at 31 March 2023**

| **Non current assets:** | K'000 |
|---|---:|
| Property, Plant and Equipment (W6) | 96,630 |
| Investment Property (W1) | 57,200 |
| Financial Asset (W2) | 60,500 |
| Total non current assets | 214,330 |
| **Current assets:** | |
| Inventories | 37,000 |

| | |
|---|---|
| Trade receivables | 46,500 |
| Total current assets | 83,500 |
| Total assets | 297,830 |
| | |
| **Equity and liabilities:** | |
| Share capital (W10) | 12,500 |
| Share premium (W10) | 86,400 |
| Revaluation surplus (W10) | 44,000 |
| Retained earnings (W10)) | 79,509 |
| Total equity | 222,409 |
| | |
| **Non current liabilities:** | |
| 4% loan note (W3) | 15,600 |
| Lease obligation (W4) | 7,144 |
| Deferred tax (W8) | 8,400 |
| Total non current liabilities | 31,144 |
| | |
| **Current liabilities:** | |
| Trade payables | 28,700 |
| Lease obligation (W4) | 6,377 |
| Current tax payable (W8) | 2,500 |
| Bank overdraft | 6,700 |
| Total current liabilities | 44,277 |
| Total equity and liabilities | 297,830 |

**WORKINGS**

1. **Investment property:**

| | |
|---|---|
| Fair Value at 01-01-20 | 54,800 |
| Fair value gain | 2,400 |
| Fair value at 31-12-20 | 57,200 |

2. **Financial Asset – Equity instrument:**

| | |
|---|---|
| Fair value at 01-04-2023 | 50,500 |
| Fair value gain | 10,000 |
| Fair value at 31-03-2023 | 60,500 |

3. **4% loan note:**

| | Balance b/d | Effective Interest 8% | Nominal interest 4% | Balance c/f |
|---|---|---|---|---|
| Year ending 31-03- | 15,000 | 1,200 | (600) | 15,600 |

4. **Leased plant:**

| | Balance b/f | Interest (12%) | Lease rental | Balance c/f |
|---|---|---|---|---|
| Year ending31-03-2023 | 19,215 | 2,306 | (8,000) | 13,521 |
| | 13,521 | 1,623 | (8,000) | 7,144 |
| | 7,144 | 857 | (8,000) | |

Therefore, Finance cost 2,306
Depreciation (19,215/3 years) =6,405
Non-current liabilities 7,144
Current liabilities 6,377 (13,521-7,144)

5. **Agency sales:**

| | |
|---|---|
| Debit Revenue | 35,100 |
| Credit cost of sales | 35,100 |

6. **Property, plant and equipment:**

| | Land (K'000) | Buildings (K'000) | Owned (K'000) | Leased (K'000) |
|---|---|---|---|---|
| Cost b/f | 6,000 | 32,000 | 25,800 | 19,215 |
| Less acmtd Dep | - | (6,400) | (12,600) | - |
| Carrying amount | 6,000 | 25,600 | 13,200 | - |
| | 4,000 | 40,000 | - | - |
| Revalued | 10,000 | 65,600 | 13,200 | 19,215 |
| Depreciation expense: | | | | |
| Building(65,600/40 years) | | (1,640) | | |
| Own plant(20% x 13,200) | | | (2,640) | |

Leased plant(19,215/3years)
(6,405)

| | | | | |
|---|---|---|---|---|
| c | 10,000 | 63,960 | 10,560 | 12,810 |
| Less Impairment loss | - | - | (700) | - |
| | 10,000 | 63,960 | 9,860 | 12,810 |

TOTAL PPE 83,820 + 12,810 = 96,630

**Impairment review:**

Value in use 400 x 3.433 =1,373
420 x 0.519 = 218
1,591

| | | |
|---|---|---|
| Carrying amount of tested asset | | 2,400 |
| Recoverable amount(higher of fair value cost and value in use) | | 1,700 |
| Impairment loss of plant | | 700 |
| Fair value less costs | 1,700 | |

7. **Operating expenses**

| | Cost of sales K'000 | Administration K'000 | Distribution K'000 |
|---|---|---|---|
| Per question | | 34,100 | 51,400 |
| Opening inventory | 44,400 | | |
| Purchases | 166,900 | | |
| Agency sales | (35,100) | | |
| Closing Inventory | (37,000) | | |
| Impairment loss | 700 | | |
| Depreciation : Building | | 1,640 | |
| Own plant | 2,640 | | |
| Leased plant | 6,405 | | |
| | 148,945 | 35,740 | 51,400 |

8. **Current tax/deferred tax**

Year ending provision of K2,500
Debit profit and loss K2,500
Credit tax payable K2,500

**Income tax: Deferred Tax**

Balance c/f 8,400
Less balance b/f (7,200)
Debit profit and loss 1,200

9. **Dividends paid**

Number of shares in existence 10,000/0.5
20 million shares x K0.03
= K600

10. **New share issue**

New share issue

5,000,000 shares x K1

Debit suspense 7,500

Credit share capital 2,500

Credit share premium 5,000

Share capital 5,000,000 share premium K2,500,000

Total proceed K7,500,000

**Kaloto Ltd statement of changes in equity for the year ended 31 March 2023**

| | Share capital | Share premium | Revaluation surplus | Retained earnings | Total |
|---|---|---|---|---|---|
| B/f | 10,000 | 81,400 | - | 34,900 | 126,300 |
| TCI | | | 44,000 | 45,209 | 89,209 |
| New issue | 2,500 | 5,000 | - | - | 7500 |
| Divided paid | | | | (600) | (600) |
| | 12,500 | 86,400 | 44,000 | 79,509 | 222,409 |

**SOLUTION THREE**

**Kala Plc.**
**Statement of cash flows for the year ended 31 March 2023**

| **Cash flows from operating activities**: | K'000 | K'000 |
|---|---|---|
| Loss before tax | | (110) |
| Adjust for: interest receivable | | (30) |
| Finance cost | | 60 |
| Depreciation expense (W1) (30 + 202.5) | | 232.5 |
| Loss on disposal | | 30 |
| Amortization of licenses (1,275-1,000) | | <u>275</u> |
| Cash from operations before working capital movements | | 457.5 |
| Increase in trade receivables (2,895-1,980) | | (915) |
| Increase in trade payables (1,325-1,288) | | <u>37</u> |
| Cash generated from operation | | (420.5) |
| Interest paid | | (60) |
| Tax paid (W2) | | <u>(203)</u> |
| Net cash used in operating activities | | (683.5) |
| **Cash flows from investing activities**: | | |
| Cash paid to acquire PPE (W1) (275 + 150) | (425) | |
| Proceed from plant disposal | 37.5 | |
| Interest received (W3) | <u>25</u> | |
| Net cash paid on investing activities | | (362.5) |
| **Cash flows from financing activities:** | | |
| Proceeds from the issue of shares (750+150-500) | 400 | |
| Loan acquired (400-375) | 25 | |
| Dividend paid | <u>(61)</u> | |
| | | <u>364</u> |
| Net decrease in cash and cash equivalents | | <u>(682)</u> |
| Add cash and cash equivalents at start (W4) | | 487 |
| Cash and cash equivalents at the end | | (195) |

**WORKINGS**

1. **Property, Plant and Equipment:**
   (a) **Land and buildings:**

| | |
|---|---|
| Carrying amount c/f | 1,470 |
| Plus dep'n expense | 30 |
| Less carrying amount b/f | (1,050) |
| Less revaluation surplus | <u>(175)</u> |
| Cash purchase (bal fig) | <u>275</u> |

   (b) **Plant and equipment:**

Carrying amount of disposed plant:

| | |
|---|---|
| Proceed | 37.5 |
| Loss on disposal | <u>30</u> |
| Carrying amount | <u>67.5</u> |

   (c) **Depreciation charge of plant:**

| | |
|---|---|
| Carrying amount b/f | 850 |
| Add cash purchase of plant | 150 |
| Less CA of disposed plant | (67.5) |
| Less Carrying amount c/f | (730) |
| Depreciation charge (bal fig) | 202.5 |

2. **Taxation paid:**

| | |
|---|---|
| Deferred tax b/f | 188 |
| Current tax b/f | 275 |
| Tax charge for the year | 3 |
| Less deferred tax c/f | (225) |
| Less current tax c/f | (38) |
| Tax paid | 203 |

3. **Interest received**

| | |
|---|---|
| Interest receivable b/f | 8 |
| Plus profit/loss credit | 30 |
| Less interest receivable c/f | (13) |
| Interest paid | 25 |

4. **Cash and cash equivalents at start and at end**

| | 2023 | 2022 |
|---|---|---|
| | K'000 | K'000 |
| Short term deposits | 80 | 300 |
| Bank | 37 | 187 |
| Bank overdraft | (312) | 0 |
| | (195) | 487 |

**SOLUTION FOUR**

(a) A temporary difference is any difference between the carrying amount (account base) of an asset or liability in the statement of financial position and its tax base.

(b) When the carrying amount of an asset is greater than its tax base, then there is a taxable temporary difference and it gives rise to deferred tax liability that should be recognized. Or the carrying amount is less than the tax base of the liability, and this gives rise to a deferred tax asset.
An example where the carrying amount of an asset is greater than its tax base is when a company applies a policy of revaluation of its items of property, plant and equipment (PPE) and the PPE are revalued upwards to their fair value. The taxable temporary differences arise as tax on the revaluation surplus of an asset and will only be payable when the asset is sold in future, and so the tax burden on the company is deferred.

It can also occur where wear and tear of the carrying amount is given at a higher rate than normal depreciation for accounting purposes.

Deductible temporary difference arises when the carrying amount of an asset or liability is lower than its tax base, or the accounting base exceeds the tax base of a liability, and this gives rise to a deferred tax asset.

The deferred tax asset is only recognized to the extent that it is probable that taxable profits will be available against which the deductible temporary differences can be utilized.

An example where the carrying amount of an asset is lower than its tax base is where wear and tear of the carrying amount is less than the depreciated rate.
And when a company applies a policy of revaluation on its items of PPE and the PPE are revalued downwards, to their fair value, the deductible temporary difference arises.

(c) Situation (1)
As Mulusa Plc began the year to 31 March 2023 with an underprovision of current tax of K16 million, this increased the current tax charge to the profit or loss statement for the year under review to K83 million. This is the sum of the estimated provision for current tax for the year of K67 million and the underprovision at the end of the previous year of K16 million. Additionally, the current tax liability of K67 million for the current year will be recognized in statement of financial position as a current liability at 31 March 2023.

Situation (2)

Mulusa had deferred tax liability at 1 April 2022 amounting to K78 million (30% x K260 million) whereas the DT liability amount at 31 March 2023 was K72 million ([(30% x K200 million) + (30% x K40 million {K400 million – K360 million}. Therefore, there was a decrease in the deferred tax liability in the period amounting to K6 million (K78 million – K72 million). This amount would be credited to statement of profit or loss for year ending 31 March 2023. A deferred tax liability of K72 million will be recognized as a non current liability in the statement of financial position as at 31 March 2023.

Considering situation one (1) and situation two (2) collectively, the net amount to the statement of profit or loss will be an income tax charge of K77 million (K83 million – K6 million while current liability and non current liability deferred tax remain K67 million and K72 million respectively. This would be split between the amount to charge to the SPL and that to charge to SCIE and in OCI section.

## SOLUTION FIVE

(a) The main objective of general purpose financial reporting is, 'to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about utilizing resources of the entity.

(b) **Asset** - a resource controlled by an entity as a result of past events from which future economic benefits are expected to flow to the entity.

**Liability** – a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

**Equity** – the residual interest in the assets of an entity after deducting its liabilities

**Income** - Increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

**Expenses** – decreases in economic benefits during the accounting period in the form of outflows or depletion of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

(c) **Qualitative characteristics of financial information are as follows:**

**i) Understandability**

Understandability depends on:

1. the way in which information is presented
2. the capabilities of users.

It is assumed that users:

3. 'have a reasonable knowledge of business and economic activities'
4. 'review and analyse the information diligently' For information to be understandable users need to be able to perceive its significance.

ii) **Faithful representation**

Information must represent the phenomena that it purports to represent. To be a perfect faithful representation, information would have to possess the following characteristics:

1. Complete- To be understandable, information must contain all the necessary descriptions and explanations.
2. Neutrality – information must be neutral, that is, free from bias. Financial statements are not neutral if, by the selection or presentation of information, they deliberately influence the making of a decision or judgement in order to achieve a predetermined result or outcome.
3. Free from error – Information must be free from error within the bounds of materiality. A material error or omission can cause the financial statements to be false or misleading, and thus unreliable and deficient in terms of their relevance. Free from error does not mean perfectly accurate in all respects. For example,

where an estimate has been used the amount must be described clearly and accurately as being an estimate. and free from error.

Faithful representation is enhanced by accounting for transactions in accordance with substance over form.

iii) **Relevance**:

capable of making a difference in the decisions made by users. Relevant information has predictive value, confirmatory value, or both. Predictive value enables users to evaluate or assess past, present or future events. Confirmatory value helps users to confirm or correct past evaluations and assessment. Relevant information is also provided in good time to influence the decisions. Materiality has a direct impact on the relevance of information. It is described as a threshold quality of relevance. This means materiality of an element in financial statements must be checked before other qualities of that information. And if any information does not pass the test of materiality, it does not need to be considered further. Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements.

**iv) Comparability**

Users must be able to:

1. compare the financial statements of an entity over time to identify trends in its financial position and performance
2. compare the financial statements of different entities to evaluate their relative financial performance and financial position.

For this to be the case there must be:

- ✓ consistency and
- ✓ disclosure.

1. An important implication of comparability is that users are informed of the accounting policies employed in preparation of the financial statements, any changes in those policies and the effects of such changes. Compliance with accounting standards, including the disclosure of the accounting policies used by the entity, helps to achieve comparability.

2. Because users wish to compare the financial position and the performance and changes in the financial position of an entity over time, it is important that the financial statements show corresponding information for the preceding periods.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 12 SEPTEMBER 2023

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

## INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional scenario Questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A**

**This Question is compulsory and MUST be attempted.**

**QUESTION ONE – (COMPULSORY)**

Bbosi Ltd, a company based in Lusaka, manufactures and sells a single Product X. Raw material W is used in producing Product X. For the year ended 31 December 2022, the Statement of Financial position for the company was as follows:

| | K |
|---|---|
| **Non- current Assets:** | |
| Property, Plant and Equipment (Note 1) | 480,000 |
| | |
| **Current Assets:** | |
| Inventory: Raw Materials (note 2) | 15,000 |
| Finished goods (Note 3) | 14,000 |
| Receivables (note 4) | 140,000 |
| Cash and bank | 61,000 |
| Total Assets | 710,000 |
| | |
| **Equity:** | |
| Share capital (note 5) | 460,000 |
| Share Premium | 130,000 |
| Retained earnings | 90,000 |
| | |
| **Current Liabilities:** | |
| Trade Payables (note 6) | 30,000 |
| Total Equity and Liabilities | 710,000 |

**You are provided with the following additional information:**

1. For the year 2022, the annual depreciation on the property, plant and equipment, charged on the straight line basis was K120,000.
2. 200 kg of raw material W were in inventory as at 31 December 2022.
3. 100 units of finished goods were in inventory as at 31 December 2022.
4. Receivables comprised K50,000 for November 2022 sales and K90,000 from the December 2022 sales.
5. The company issued 10,000, K1 Ordinary shares at K1.50 per share. All shares were paid for in full in February 2023.
6. All trade payables were in relation to the supply of raw materials.
7. For the first quarter of 2023, the company's estimates on a month by month basis were as follows:

| | **January** | **February** | **March** |
|---|---|---|---|
| Sales in units | 160 | 164 | 194 |
| Production in units | 140 | 150 | 180 |
| Purchases of material W (Kg) | 160 | 160 | 170 |

| | K | K | K |
|---|---|---|---|
| Production wages | 5,600 | 6,000 | 7,200 |
| Production overheads | 2,800 | 3,000 | 3,600 |
| Fixed Admin and Selling Overheads | 3,000 | 3,000 | 3,000 |

8. The company's budgeted selling price of product X is K240 per unit and all sales will be on credit. Receivables are allowed two month's credit.
9. One kg of raw material is needed to produce one unit of finished product
10. Raw material W will be bought at K80 per kg on credit. Suppliers of raw materials are paid after one month's credit.
11. Production wages, production overheads and fixed administration and selling overheads are paid in the month in which they are incurred.
12. A new motor vehicle will be acquired in January 2023 at a cost of K120,000 and paid for in February, 2023.
13. The new motor vehicle will be depreciated at 20% per annum on a straight line basis.
14. The company uses FIFO method of inventory valuation for raw materials and budgeted production cost for valuation of inventory of finished products.
15. Fixed production overheads are absorbed into cost of production on the basis of 50% of direct labour cost.
16. 174 units of finished goods were in inventory as at 31 March 2023.

**Required:**

(a) Calculate the closing inventory of raw materials at the end of the quarter. (3 marks)

(b) Calculate the production cost on a month by month basis and total for the quarter. (9 marks)

(c) Prepare the cash budget for the quarter to 31 March 2023. (12 marks)

(d) Prepare the Master Budget (i.e. the budgeted statement of Comprehensive Income for the quarter ended 31 March 2023, and the Budgeted Statement of Financial Position as at 31 March 2023) (16 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) Optional scenario Questions in this section. Attempt any THREE (3) questions.**

**QUESTION TWO**

James and Benny are brothers and in 2000 started JB Sporting Limited a company manufacturing plastic balls ("Chimpompwa"). Over the years, the company has grown significantly and invested in modern equipment and machinery. The company now produces genuine leather balls used in many sporting activities including football, handball and basketball. The leather ball is one of the popular products that JB Ltd produces and sells. Each leather ball uses 2kg of leather which is the main material used with all other materials being negligible in value. In the month of January 2023, the price and supply of leather has been extremely volatile. Leather balls are planned to be sold in the period to June 2023 and JB Ltd had 2,500Kg of leather costing K575,000 at 1 January 2023. The following transactions were recorded in the month of January 2023 regarding leather;

| Date | Transaction |
|---|---|
| 2 January 2023 | Issued 1,500 Kg of leather for the production of balls |
| 5 January 2023 | Purchased 3,000 Kg of leather at K245 per Kg |
| 9 January 2023 | Purchased 6,000, Kg of leather at K225 per Kg |
| 11 January 2023 | Issued 3,500 Kg of leather for the production of balls |
| 12 January 2023 | Issued 2,500 Kg of leather for the production of balls |
| 19 January 2023 | Purchased 2,000 Kg of leather at K250 per Kg |
| 28 January 2023 | Issued 4,000 Kg of leather for the production of balls |

At the start of January 2023, 1,500 leather balls costing K345,000 were in inventory in anticipation of the growing demand resulting from the inter-provincial games scheduled for June 2023, a total of 6,375 leather balls are planned to be sold at a price of K945 per leather ball. The standard variable production costs per leather ball is K200 while other non-production costs varying with units sold amount to K150 per leather ball.

JB Ltd has been using First in First out (FIFO) method of inventory valuation for all its inventories. The company plans to adopt a Last in First out (LIFO) method of inventory valuation.

**Required:**

(a) Using the FIFO method of inventory valuation, calculate the total cost of the leather used in the production of balls in the month of January 2023. (7 marks)

(b) Prepare the profit statement for JB Sporting Limited for the period to June 2023 using the FIFO method. (8 marks)

(c) Explain the impact on the inventory valuations and profit if JB Limited adopted a LIFO approach. (5 marks)

**[Total: 20 Marks]**

## QUESTION THREE

Kapiri Beverages Limited (KBL) is a company under the Investment Holding Group. The company was established in 2000 to produce non-alcoholic beverages. One of KBL's most popular drinks being consumed in the country is 'Kumbucha'.

At a recent meeting held, the Board of Directors unanimously agreed to expand the market for the Kumbucha drink to neighbouring countries. A customer from Zimzim one of Zambia's neighbouring countries expressed interest to import Kumbucha. An export contract of 50,000 cases of Kumbucha per year is being negotiated. Each case of Kumbucha drink contains 100 bottles of 350mls. The table below summaries the production information and ingredients used in the manufacturing of Kumbucha:

| **Ingredient** | **Unit per case** | **Cost per unit K** | **Cost per Case K** |
|---|---|---|---|
| Sugar concentrate | 5 Kg | 30 per Kg | 150 |
| Ginger | 10 Kg | 25 per Kg | 250 |
| Tea | 8 Kg | 10 per Kg | 80 |
| Distilled water | 40 Litres | 4 per litre | 160 |
| Total | | | 640 |

There is sufficient supply of the distilled water as the company installed a system to harness ground and spring water. However, the supply of other ingredients has been projected as follows;

| | | |
|---|---|---|
| Sugar concentrate | - | 410 metric tons |
| Ginger | - | 805 metric tons |
| Tea | - | 504 metric tons |

The local demand for Kumbucha is 30,000 cases per annum with a bottle selling at K11 per 350ml. The selling price for the export market with Zimzim was agreed at K1,512 per case, however, specific export/import related cost of K400 per case shall arise and these costs are usually revised annually. Further, the export market customer has demanded that their Kumbucha contains 50% more tea with the other ingredients remaining the same.

KBL's processing plant has sufficient capacity to produce up to 80,000 cases of Kumbucha per annum with other variable production costs of K200 per case incurred.

**Required:**

(a) Identify the limiting factor in the period. (5 marks)

(b) Determine the optimal total contribution and advise KBL on the best course of action on purely financial grounds. (11 marks)

(c) Explain two (2) non-financial factors that should be considered in the negotiations to export Kumbucha to Zimzim and how to manage these non-financial factors. (4 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

Royal Specialist Hospital (RSH) in Ndola offers a range of surgeries to its patients. The hospital operates throughout the year. RSH intends to introduce ear and eye surgical operations. However, for the year 2023, due to budget constraints RSH can only afford to offer one of the two surgical operations. The Management Accountant has collated the costing details of each of the surgeries, including proposed fees as shown below.

*Cost information*

| | Note | Ear | Eye |
|---|---|---|---|
| Surgeon's salary (per day) | 1 | K850 | K850 |
| Surgeon's call charge (per call) | 2 | K120 | K164 |
| Nursing services cost per patient | 3 | K130 | K160 |
| Meals per patient | 4 | K125 | K158 |
| Medicines per each operation | 5 | K500 | K600 |
| Recovery room costs | 6 | K325 | K350 |
| Patient fees per day | 7 | K1,500 | K1,900 |

**Notes:**

1. RHS has contracts with four (4) specialist surgeons and is therefore **obliged** to pay an agreed amount.
2. Surgeons are paid for emergency calls.
3. Nurses are paid a special allowance for taking care of patients.
4. This is the average cost of each meal. Meals are supplied by a third party.
5. Medicines would need to be used both pre and post-surgery.
6. This involves costs such as lighting and pay television fees.
7. Patients are made to pay an estimated amount in advance.
8. Assuming that the typical year is 300 days, the average daily number for ear patients is 2 and 5 for eye respectively.
9. RHS's annual revenue budget for both ear and eye is K15,000,000 analysed in the sales mix of 2:1.

**Required:**

(a) For EACH surgery:

(i) Calculate the breakeven point in sales revenue. (8 marks)

(ii) Calculate the number of surgeries that should be carried out by RHS to achieve a profit of K100,000 per month. (4 marks)

(iii) Calculate the margin of safety in percentages, assuming sales achieved are equal to the average (expected) number of patients. (3 marks)

(b) It is reasonable to argue that Not for Profit Organisations best serve society's interests when the gap between the benefits they provide and the cost of providing those benefits is greatest. This is commonly termed value for money and is not dissimilar from the concept of profit maximisation, apart from the fact that society's interests are being maximised rather than profit.

**Required:**

Explain the term "Value for Money". (5 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

Max Ltd is a small business, which has the following budgeted marginal costing statement of profit or loss for the month ended 30 April 2023:

| | K'000 | K'000 |
|---|---|---|
| Sales | | 4,800 |
| Cost of sales: | | |
| Opening inventory | 300 | |
| Production costs | 4,000 | |
| Closing inventory | (1,100) | |
| | 3,200 | |
| Other variable costs: | | |
| Selling | 320 | |
| | | (3,520) |
| Contribution | | 1,280 |
| Fixed costs: | | |
| Production overheads | 400 | |
| Administration | 360 | |
| Selling | 120 | |
| | | (880) |
| Net profit | | 400 |

The additional information provided is as follows:

1. The standard cost per unit is:

| | K |
|---|---|
| Direct materials (1 kg) | 800 |
| Direct labour (3 hours) | 900 |
| Variable Production overheads (3 hours) | 300 |
| | 2,000 |

2. Budgeted selling price per unit K3,000

3. The normal level of activity is 2,000 units per month. Fixed production costs are budgeted at K400,000 per month absorbed on the basis of direct labour hours.

4. The actual results for the month of April 2023 were as follows:

| | |
|---|---|
| • Sales (1,700 units) at K3,200 per unit | K5,440,000 |
| • Total direct material cost at K700 per Kg | K1,260,000 |
| • Total direct labour cost at K400 per hour | K2,040,000 |
| • Total variable production overhead cost at K110 per hour | K561,000 |
| • Total variable selling overheads | K391,000 |

**Required:**

(a) Calculate the budgeted fixed production overhead absorption rate and the standard production cost per unit based on absorption costing. (3 marks)

(b) Explain the three (3) stages of the absorption costing system. (3 marks)

(c) Identify any two (2) arguments in favour of the use of marginal costing. (3 marks)

(d) Calculate the following variances for the month of April 2023:

(i) Sales price variance (1 mark)

(ii) Sales volume profit variance (1 mark)

(iii) Direct material price variance (1 mark)

(iv) Direct material usage variance (1 mark)

(v) Direct labour rate variance (1 mark)

(vi) Direct labour usage variance (1 mark)

(vii) Variable production expenditure variance (1 mark)

(viii) Variable production efficiency variance (1 mark)

(e) Outline any three (3) possible causes of the material usage variance as calculated in (d) (iv) above. (3 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## CA2.2 MANAGEMENT ACCOUNTING SUGGESTED SOLUTIONS

### SOLUTION ONE

(a) **Closing inventory of raw materials at end of quarter**

| | Kg |
|---|---|
| Opening inventory | 200 |
| Add: purchases (160 + 160 + 170) | 490 |
| Less: production (140 +150 + 180) | (470) |
| Closing inventory | 220 |

(b) **Production cost on month by month basis and total for the quarter**

| | January | February | March | Total |
|---|---|---|---|---|
| | K'000 | K'000 | K'000 | K'000 |
| Raw materials (Workings) | 10,500[1] | 11,700[2] | 14,400 | 36,600 |
| Production wages | 5,600 | 6,000 | 7,200 | 18,800 |
| Production overheads | 2,800 | 3,000 | 3,600 | 9,400 |
| Production cost per month | 18,900 | 20,700 | 25,200 | 64,800 |

**Workings** (materials charged to production based on FIFO method)

| | | K |
|---|---|---|
| [1] January | (140kg x K15000/200kg) | 10,500 |
| [2] February | 60kg x K15000/200kg | 4,500 1 |
| | 90Kg x K80/Kg | 7,200 |
| | 150 | 11,700 |
| [3] March | 180kg x K80/Kg | 14,400 |

(c) **Cash Budget on a month by month for the quarter ended 31 March 2023**

| | January | February | March |
|---|---|---|---|
| | K | K | K |
| Receipts (i) | | | |
| Receivables (two month's credit) | 50,000 | 90,000 | 38,400 (w1) |
| Share capital (10000 x K1.50) | | 15,000 | |
| Total receipts | 50,000 | 105,000 | 38,400 |
| Payments (ii) | | | |
| Payables (one-month's credit) | 30,000 | 12,800 | 12,800 |
| Production wages | 5,600 | 6,000 | 7,200 |
| Production overheads | 2,800 | 3,000 | 3,600 |
| Fixed Admin and Selling Overheads | 3,000 | 3,000 | 3,000 |
| Motor vehicle | | 120,000 | |
| Total payments | 41,400 | 144,800 | 26,600 |
| Opening Cash balance | 61,000 | 69,600 | 29,800 |
| Net cash [(i) – (ii)] | 8,600 | (39,800) | 11,800 |
| Closing Cash balance | 69,600 | 29,800 | 41,600 |

(d) **Bbosi Ltd Master Budget**

**Budgeted Statement of Profit or Loss for the Quarter ended 31 March 2023**

| | K | K |
|---|---|---|
| Sales (38,400 + 39,360 + 46,560) | | 124,320 |
| Cost of Sales | | |
| Opening inventory of finished goods | 14,000 | |
| Production | 64,800 | |
| Closing inventory- finished goods [174 x K140(w2)] | (24,360) | |
| | | (54,440) |
| Gross profit | | 69,880 |
| Less Expenses: | | |
| Fixed Admin and selling expenses (3000+3000+3000) | 9,000 | |
| Depreciation on: | | |
| PPE (120,000/12 x 3) | 30,000 | |
| New Motor vehicle (120,000 x20%) | 6,000 | |
| | | (45,000) |
| Net profit | | 24,880 |

**Budgeted Statement of Financial Position as at 31st March 2023**

| | K | K |
|---|---|---|
| *Non-current assets* | | |
| PPE (480,000 +120,000 – 30,000 – 6,000) | | 564,000 |
| *Current Assets* | | |
| Inventory: Raw materials (220 x K80) | 17,600 | |
| Finished goods | 24,360 | |
| Receivables (39,360 + 46,560) | 85,920 | |
| Cash | 41,600 | |
| | | 169,480 |
| *Total Assets* | | 733,480 |
| *Equity* | | |
| Share capital (460,000 + 10,000) | | 470,000 |
| Share Premium (130,000 + 5,000) | | 135,000 |
| Retained earnings (90,000 + K24,880) | | 114,880 |
| *Total equity* | | 719,880 |
| | | |
| *Current Liabilities* | | |
| Trade Payables (170 x K80) | | 13,600 |
| Total Equity and Liabilities | | 733,480 |

**Workings**

1. Sales Budget sales on a month by month for the quarter in Kwacha

| | January | February | March |
|---|---|---|---|
| | K | K | K |
| Sales (units) | 160 | 164 | 194 |
| x by Selling Price per unit | 240 | 240 | 240 |
| Budgeted Sales per month | 38,400 | 39,360 | 46,560 |

2. Budgeted Production cost of Product X based on absorption costing

| | K |
|---|---|
| Direct materials: K80 per unit | 80 |

| | |
|---|---|
| Production wages per unit = (K5,600/140 units) | 40 |
| Production overheads per unit = (K2,800/140 units) | 20 |
| Production cost | 140 |

**SOLUTION TWO**

(2a) *Calculation cost of leather used in production in the month of January 2023 Using the FIFO method of inventory valuation.*

| Date | Issues to production | Amount (K) |
|---|---|---|
| 2/01/2023 | 1,500Kg@K230 per Kg | 345,000 |
| 11/01/2023 | 1,000Kg@K230 per Kg | 230,000 |
| | 2,500Kg@K245 per Kg | 612,500 |
| 12/01/2023 | 500Kg@K245 per Kg | 122,500 |
| | 2,000Kg@K225 per Kg | 450,000 |
| 28/01/2023 | 4,000Kg@K225 per Kg | 900,000 |

**Total issued to production in the period 11,500 Kg valued at K2,660,000**

- ✓ 2nd January issue 1,500 Kg X K230 = K345,000
- ✓ 11th January issues 1,000 Kg x K230 and 2,500 Kg x K245 = K842,500
- ✓ 12th January issues 500 Kg x K245 and 2,000 Kg x K225 = K572,500
- ✓ 28th January issue 4,000 Kg x K225 = K900,000

**Total material cost = K2,660,000**

(2b) *: Preparation of profit statement for JB Sporting Limited for the month of January 2023 using the FIFO approach of inventory valuation*

**Production cost**

Material cost (11,500 Kg) valued at K2,660,000

Other production costs (11,500/2 x K200 per unit) = K1,150,000

Total cost per unit = K3,810,000/5,750 = **K662.61 per unit**

Closing inventory valuation: 875 units@K662.61 per unit = **K579,784**.

**Profit statement**

| **Details** | **K** | **K** |
|---|---|---|
| Revenue (K945 x 6,375 units) | | 6,024,375 |
| Opening inventory | 345,000 | |
| Production cost | 3,810,000 | |
| | 4,155,000 | |

| | | |
|---|---|---|
| Closing inventory | (579,784) | |
| | 3,575,216 | |
| Other costs of sales (K150 x 6,375 units) | 956,250 | |
| Total cost of sales | | (4,531,466) |
| Profit | | **1,492,909** |

- ✓ From materials of 11,500 Kg issued to production, 5,750 leather balls produced
- ✓ Total production cost: material cost (i.e K2,660,000) + other production cost (K150 x 5,750 units) = K3,810,000
- ✓ Full cost per unit K662.61 per leather ball produced
- ✓ Closing inventory of leather balls 1,500 + 5,750 – 6,375 = 875
- ✓ Closing inventory value K662.61 x 875 = K579,784
- ✓ Other variable production costs K200 x 5,750 = K1,150,000
- ✓ Other non-production costs K150 x 6,375 = K956,250
- ✓ Total cost of sales = **K4,531,466**
- ✓ Revenue K945 x 6,375 = **K6,024,375**

  Profit =K **1,492,909**

(2c) *Explanation of the impact on the inventory valuations and profit if LIFO approach was adopted*

Changes calculated based on FIFO – LIFO values

- Increased in material production cost (K2,660,000 – K2,685,000) =(K25,000)
- Decrease in value of closing inventory (K579,784 –K201,250)
- **Net decrease in profit = (K403,534)**

- ✓ Opening inventory values remain the same
- ✓ Value of purchases remain the same
- ✓ Cost of production increases due to high material costs
- ✓ Closing inventory values decreases leading to increased cost of sales
- ✓ Profit will decrease.

**SOLUTION THREE**

(a) *: Identify the limiting factor in the period*

| | Sugar | Ginger | Tea (local) | Tea (export) |
|---|---|---|---|---|
| Usage per unit | 5 Kg | 10 Kg | 8 Kg | 12 Kg |
| Production/demand | 80,000 | 80,000 | 30,000 | 50,000 |
| Total materials | 400,000Kg | 800,000Kg | 240,000kg | 600,000Kg |
| Available materials | 410,000Kg | 805,000Kg | 504,000kg | |
| Limiting factor | NO | NO | YES | |

Shortfall in tea 336,000 Kg (840,000 Kg – 504,000 Kg)

- ✓ Total sugar concentrate required for 80,000 cases = 400,000 Kg or 400 metric tons
- ✓ Total Ginger required for 80,000 case = 800,000 Kg or 800 metric tons
- ✓ Tea for export 12 kg per case
- ✓ Total Tea required for 80,000 cases = 840,000 Kg or 840 metric tons
- ✓ Sugar concentrate and Ginger are not limiting
- ✓ Tea shortfall = 336,000 Kg or 336 metric tons

(3b) *: Determination optimal product mix and total contribution thereon*

| | Local | | Export |
|---|---|---|---|
| Selling price | K1,100 | | K1,512 |
| Ingredient cost per unit | K640 | K680 | |
| Other costs per unit | K200 | K200 | |
| Other Specific costs | K0 | | K400 |
| Contribution per unit | K260 | K232 | |
| Limiting factor per unit | 8 Kg | | 12 Kg |
| Contribution per L/F | **K32.50 per Kg** | | **K19.33 per Kg** |
| Production preference | 1st | | 2nd |
| Production mix | **30,000** | | **22,000** (balance 264,000Kg/12) |

Maximum contribution

- K260 x 30,000 cases = **K7,800,000**
- K232 x 22,000 cases **K5,104,000**

**Total Contribution = K12,904,000**

- ✓ Contribution per case from local sales = K260
- ✓ Contribution per case from export sales = K232
- ✓ Contribution per limiting factor from local sales = K32.50 per Kg – 1st
- ✓ Contribution per limiting factor from export sales = K19.33 per Kg – 2nd
- ✓ Meet local demand 30,000 cases
- ✓ Produce 22,000 for export market with remaining Kgs of tea = 22,000
- ✓ Total contribution from local sales K7,800,000
- ✓ Total contribution from export sales K5,104,000

KBL advised to prioritise the local market Total optimal contribution K12,904,000

(3c) *: Three non-financial factors that should be considered when deciding to export Kumbucha to Zimzim*

Based on financial factors, the local market is more lucrative than the export market; however, there are other benefits that could be derived by exporting local products. Therefore, it important to consider the other non-financial factors before making the decision including;

- ✓ Consideration of partial supply to export market so that only 22,000 cases could be supplied immediately, with the balance as capacity is enhanced;
- ✓ Consideration of applicable export regulation and quality requirements, these could be stringent at times making the actual exportation impractical.
- ✓ KBL should invest in increased capacity to manage demand shortfall and when would this be available. It should engage the Ministry of Trade to ease export requirements.

**SOLUTION FOUR**

(a) Breakeven analysis for each surgery

(i) Breakeven point in sales revenue

BEP = Fixed cost/contribution sales ratio

Ear:

BEP = K1,020,000/0.2 = K5,100,000

Eye:

BEP = K1,020,000/0.25 = K4,080,000

Workings:

Fixed costs = 4 surgeons x K850 /day x 300 days = K1,020,000

Contribution per unit (ear) = K1,500 – K1,200 = K300

C/S ratio = 300/1,500 = 0.2

Contribution per unit (eye) = K1,900 – K1,432 = K468

C/S ratio = 468/1,900 = 0.25

(ii) Target profit

Number of units (surgeries) = (Fixed costs + Target profit) / Contribution per unit

Ear:

Number of surgeries = (K1,020,000 +K100,000)/300 = 3,733

Eye:

Number of surgeries = (K1,020,000 +K100,000)/468 = 2,393

(iii) Margin of safety

MOS = [(Budgeted sales – BEP sales)/Budgeted sales] x 100%

Ear:

MOS = [[(K10,000,000 – K5,100,000)/K10,000,000] x 100% = 49%

Eye:

MOS = [[(K5,000,000 – K4,080,000)/K5,000,000] x 100% = 18.4%

Working

Sales mix = 2 + 1 = 3

Budgeted sales revenue

Ear = 2/3 x K15,000,000 = K10,000,000

Eye = 1/3 x K15,000,000 = K5,000,000

(b) Value for money (VFM)

VFM is often expressed in terms of pursuing economy (careful management of available resources), efficiency (delivering the best level of service for less) and effectiveness (delivering the right service) to achieve desired outcomes and maximise the benefit of those outcomes. Successful demonstration of VFM is not limited to purchasing a service or item at the lowest price or making savings from existing resources. Investing higher levels of resource (in terms of cost, time or effort) may be justified by the results they deliver. The ability to set targets, monitor performance and record outcomes is key in measuring VFM. Higher levels of investment may also be justified through increased income generation; so the diversification of income streams should be encouraged and incentivized.

VFM is measured using the 3Es model.

(i) Effectiveness is the extent to which declared objectives/goals are met.
(ii) Efficiency is the relationship between inputs (resources) and outputs (results).
(iii) Economy is attaining the appropriate quantity and quality of inputs at the lowest cost to achieve a certain level of outputs.

**SOLUTION FIVE**

(a) Budgeted fixed production overhead absorption rate and the standard production cost per unit

i) Budgeted fixed production overhead absorption rate per direct labour hour

$$OAR = \frac{\text{budgeted overheads}}{\text{budgeted direct labour hours}}$$

$$= \frac{K400,000}{(2,000 \times 3)}$$

$$= \underline{\underline{K66.67}}\text{/direct labour hour}$$

ii) Standard Production cost per unit

| | K |
|---|---|
| Variable cost | 2,000 |
| Add: fixed production ohds (K66.67/hr x 3 hrs) | 200 |
| Production cost per unit | 2,200 |

(b) **Stages of Absorption costing system**

The three stages of the absorption costing system are:

i) Overhead allocation - this is the process by which whole cost items are charged directly to a cost unit or cost centre.
ii) Overhead apportionment - is a procedure whereby indirect costs are spread fairly between cost centres.
iii) Overhead absorption or recovery - is the process whereby overhead costs allocated and apportioned to production cost centres are added to unit, job or batch costs.

(c) **Arguments in favour of the use of Marginal costing**

The arguments in favour of the use of marginal costing are:

i) It is simple to operate.
ii) Profit is not artificially distorted by movements in inventory.
iii) There is no under or over absorption of overheads.
iv) Fixed costs are the same regardless of activity levels.
v) It provides better information for decision-making because it provides a clear distinction between fixed and variable costs

(d) **Calculations of Variances for the Month of April 2023**

i) Sales price variance

| | **K'000** |
|---|---|
| Sales revenue from 1,700 units should have been (× K3,000) | 5,100 |
| but was (× K3,200) | 5,440 |
| Selling price variance | 340 (F) |

ii) Sales volume profit variance

| | |
|---|---|
| Budgeted sales volume | 1,600 units |
| Actual sales volume | 1,700 units |
| Sales volume variance in units | 100 units (F) |
| x Standard profit per unit (K3,000 – K2,200) | x K800 |
| Sales volume profit variance | K80,000 (F) |

iii) Material price variance

| | |
|---|---|
| | **K'000** |
| 1,800 kg (K1,260,000/K700) should have cost (x K800/kg) | 1,440 |
| But did cost | 1 260 |
| | 180 **(F)** |

1

iv) Material usage variance

| | |
|---|---|
| 1,700 units should have used (1,700 x 1 Kg/unit) | 1,700 kgs |
| But used | 1,800 kgs |
| Material usage variance in units | 100 kgs (A) |
| x Standard cost per Kg | x K800 |
| Materials usage variance | K80,000 (A) |

v) Labour rate variance

| | |
|---|---|
| | K'000 |
| 5,100 hours (K2,040,000/K400) should have cost (x K300/hour) | 1,530 |
| But did cost | 2,040 |
| | 510 (A) |

vi) Labour efficiency variance

| | |
|---|---|
| 1,700 units should have taken (1,700 x 3 hours/unit) | 5,100 hours |
| But did take (K2,040,000/K400) | 5,100 hours |
| Efficiency rate in hours | 0 |
| x Standard labour cost per hour | x K300 |
| Labour efficiency variance | K0 |

vii) Variable production overhead expenditure variance

| | |
|---|---|
| | K'000 |
| 5,100 hours (K561,000/K110) should have cost (x K100/hour) | 510 |
| But did cost | 561 |
| | 51 (A) |

viii) Variable production overhead efficiency variance

| | |
|---|---|
| 1,700 units should have taken (1,700 x 3 hours/unit) | 5,100 hours |
| But did take (K561,000/K110) | 5,100 hours |
| Efficiency rate in hours | 0 |
| x Standard variable production overhead cost per hour | x K100 |
| Variable production overhead efficiency variance | K0 |

(e) **Possible causes of the material usage variances**

The three possible causes of the adverse material usage variance are:

i) Defective material used

ii) Excessive waste during production

iii) Theft of materials
iv) Stricter quality control
v) Errors in allocating material to jobs

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 14 SEPTEMBER 2023

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing. .

2. This paper is divided into TWO (2) sections:
   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional scenario Questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

## SECTION A

**This question is compulsory and must be attempted**

**<u>QUESTION ONE – COMPULSORY</u>**

Your firm of Chartered Accountants is auditor of Ball Bearing Plc. (BB Plc.) a company that imports and sells a wide range of bearings to Mining Companies.

BB Plc. is a subsidiary and its shares are listed on the Lusaka Securities Exchange (LuSE) and 75% shares are held by the parent company while the remaining 25% are owned by institutional and individual shareholders. Chris is the Chairman of the Board of Directors as well as Chief Executive Officer whose appointment was made by the majority shareholders to serve their interests. The rest of the Board of Directors comprises three (3) executive board members and two (2) Non-Executive Directors. The company intends to put in place an audit committee of the board of directors in order to meet the listing requirements.

BB Plc. has large inventory of bearings most of which is slow moving and was bought over ten (10) years ago. New mining technology has replaced a majority of the heavy-duty equipment previously used.

BB Plc. has a purchasing department whose main role is to procure bearings from the suppliers abroad. There is a Stores Department under the supervision of the Stores Manager, a Stores Supervisor and three (3) Stores Assistants. All inventory items have unique inventory numbers that are assigned by the Stores Manager when items are bought.

Previously, the company used a perpetual inventory system but in the year under review management decided that a year-end inventory count should be conducted. Management of BB Plc. was concerned that the company did not have the human resources that could conduct an effective and reliable year-end inventory count which should form the basis of inventory valuation at the year end. The Board of Directors resolved that your firm should offer consultancy on the intended inventory count and come up with suitable inventory count instructions. Before the annual inventory count was conducted, inventory count instructions were prepared and discussed with management.

The inventory count took place as planned on 31 December 2022 and management submitted a summary of the outcome of the inventory count and the valuation of inventory. The Audit Senior informed you that the provision for obsolescence is much less than expected in view of the extent of slow-moving inventory. Management of BB Plc. was not willing to increase the provision for obsolescence because this would have a direct impact on the performance of the company in the year under review and this would result in the company failing to meet its performance targets.

There are two (2) matters of concern at the end of the audit as follows:

1. The matter concerning the provision for obsolescence remains unresolved at the end of the audit. Management informed you that it would include a note in the financial statements concerning the provision and that the provision would be increased the following year.

2. The management and Board of Directors of BB Plc. are of the view that the company is a going concern. You reviewed the assumptions which management made which

formed the basis of this conclusion and you are concerned that the review was made for a period of six (6) months from the period end and that the sales forecasts in the cash flow do not appear reasonable in view of the loss of the mining business. It is not likely that BB Plc. would meet the sales targets assumed in the new market. A request to management to extend the period of evaluating the going concern ability of BB Plc. by a further six (6) months was declined.

You are concerned about the ability of the company as a going concern. Management is concerned that if the company is not considered as a going concern, the bank may enforce its security on the assets of the company. The Chief Financial Officer of BB Plc. suggested that material uncertainty with regards going concern should be noted in the *emphasis of matter* paragraph of the audit report and that it should not result in the modification of the audit opinion.

The Engagement Partner suggested that you should exercise professional skepticism during the audit of BB Plc.

**Required:**

(a) Explain the audit risk with regards to obsolete inventory in the financial statements of BB Plc. (2 marks)

(b) Suggest six (6) inventory count instructions that should be followed during the year-end inventory count of BB Plc. (12 marks)

(c) (i) Comment on the composition and effectiveness of the Board of Directors of BB Plc. (4 marks)

(ii) Explain the importance of having non-executive directors on the Board of BB Plc. And state four (4) roles of non-executive directors. (6 marks)

(d) (i) Explain the factors you should consider in deciding the form of modification of the audit opinion in the audit of the financial statements of BB Plc. (6 marks)

(ii) Suggest, with justification, a suitable audit opinion for the audit of the financial statements of BB Plc. (4 marks)

(iii) Respond to the suggestion by the Chief Financial Officer that material uncertainty with regards going concern should be included in the emphasis of matter paragraph of the audit report. (6 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any THREE (3) questions.**

## QUESTION TWO

(a) You are an Audit Manager in your firm of Chartered Accountants. You are reviewing the audit working papers for two (2) of your firm's audit clients.

**Client one:**
This client has been sued by the tax authorities for tax evasion and the case is currently in court. The firm has been cited to give evidence in court in view of the fact that it gave tax advice to the client.

**Client two:**
The Audit Senior on the audit of the financial statements of this client has informed you that the client is involved in money laundering activities. Your investigations have confirmed that indeed the client is involved in money laundering. You are now considering the action that should be taken in view of this fact.

**Required:**

For each of the above clients, explain the action your firm should take in line with ethical guidance on confidentiality.
(6 marks)

(b) Tanganyika Ltd. is a mining contractor. Your firm of Chartered Accountants has been auditor of Tanganyika Ltd. since its establishment. The firm has been offering tax and assurance services to Tanganyika Ltd. In the current year Tanganyika Ltd requested your firm to help determine the amount of tax that should be provided for in the financial statements. Previously, the firm prepared and submitted tax returns on behalf of Tanganyika Ltd.

Management has provided the following information that relates to the payroll systems for permanent and hourly paid employees:

**Permanent employees:**

The Human Resource Officer is responsible for the recruitment of staff and agreeing on the monthly salary upon engagement. All changes in salaries are effected by the Human Resource Officer who prepares the monthly payroll and the letters to the banks for transfer of net pay into the accounts of individual employees. Leavers' details are sent to the Human Resource Officer who removes the affected employees from payroll.

**Hourly paid employees:**

The foreman is responsible for recruitment of casual workers on a daily basis. He decides on the number of workers to engage depending on the work to be done. The foreman also decides on the hourly rate depending on the skills by the casual workers.

On reporting for work, the workers sign in a book maintained by the foreman indicating the time in and sign out at the end of the shift indicating the time of leaving.

At the end of the month, the foreman computes the money due to each employee based on the hours worked as recorded in the log book. This information is sent to the Financial Officer who prepares the payroll summary showing the net pay. The Financial Officer raises a cheque for the total net pay and draws cash which he puts in envelopes for each worker and seals the envelopes. The envelopes are given to the foreman who in turn gives them to the workers. In case a worker is not present when wages are paid out, the envelope can be collected and signed for by friends. Any uncollected wage envelopes are kept by the foreman and only returned to the Financial Officer a week after payday.

**Required:**

(i) Evaluate the ethical issue regarding the offering of tax services to Tanganyika Ltd. (4 marks)

(ii) Suggest five (5) internal controls that should be put in place in the payroll systems of Tanganyika Ltd. (10 marks)

**[Total: 20 Marks]**

## QUESTION THREE

(a) The Zambia Institute of Chartered Accountants (ZICA) is a mandatory membership and regulatory body for the accountancy profession in Zambia. It was established under the Accountants Act of 1982 which was subsequently repealed and replaced by the Accountants Act of 2008.

**Required:**

Explain four (4) roles of the Zambia Institute of Chartered Accountants (ZICA) with regards the regulation of accountants. (4 marks)

(b) Your client, Kwanga Co. (Kwanga) manufactures goods and has five (5) factories. Kwanga's year-end is 31 December 2022. The final audit is almost complete and the financial statements and audit report are due to be signed on 31 March 2023. Total assets and profit before tax are K10,000,000 and K1,800,000 respectively.

You had a meeting with the Finance Director, who provided the information below, regarding two (2) events that occurred subsequent to the year end. No amendments or disclosures were made in the financial statements.

1. The trade receivable (customer), owing K325,000 was declared bankrupt on 15 January 2023 by the court. The court, ruled that this customer can only pay K35,000 and the customer accepted to pay K35,000 in two (2) installments within six (6) months. Kwanga management is willing to accept the payments in installments.

2. Fire occurred at the biggest factory on 20 February 2023. This damaged inventory valued at K250,000 with no realisable value. This inventory was not insured as the inventory is fast moving goods.

**Required:**

For each of the two (2) events above:

(i) Explain whether the financial statements of Kwanga Co. require amendment. (4 marks)

(ii) Explain three (3) audit procedures that should be performed on trade receivables and inventory of Kwanga Co. (6 marks)

(iii) Explain the impact of the amendment on the audit opinion. (6 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

Your firm, BT Chartered Accountants, has been appointed as auditor for Metro Ltd (General Dealers). Metro Ltd is a small company formed by a group of youths. Despite the size of the company, the owners found it necessary to appoint a Board of Directors for the efficient running of the company. Consequently a Board of Directors was formed and the Engagement Partner on the audit of the financial statements of Metro Ltd was appointed as a member of the Board of Directors for Metro Ltd.

All the purchases of spare parts are received in stores and checked against the delivery notes and purchase orders. The Stores Supervisor prepares Goods Received Notes and is also responsible for approving returns whenever there is a problem with the parts bought by customers.

In order to boost its sales revenue, the company established a Credit department headed by the Credit Controller. In the current year, the department approved the sale on credit of parts and repairs of motor vehicles totaling 40% of its sales revenue. Some of the spare parts the company stocks are for luxury vehicles that are not common in Zambia. The Credit Controller has since resigned. The Sales Clerk who took over the role of Credit Controller approves credit sales without conducting strict background checks on customers.

The purchases ledger staff receive credit notes, purchases order and invoices and post them to the computerised purchases ledger. Suppliers are paid on the last day of the month. Other payables and accruals consist of tax, wages and other statutory deductions.

As Audit Manager, you have been asked to review the working papers that contained the following issues regarding going concern:

**Situation 1.**

The going concern basis of accounting is appropriate but material uncertainty exists which has been properly disclosed by management of Metro Ltd. The Audit Senior suggested an adverse opinion.

**Situation 2.**

There was a going concern uncertainty and management was not willing to extend assessment for going concern to a minimum of twelve (12) months. The Audit Senior suggested an unmodified audit opinion.

The following information was extracted from the statement of financial position of Metro Ltd for the year ended 31 December 2022.

| **Current liabilities:** | Km |
|---|---|
| Trade payables | 810 |
| Other payables and accruals | 267 |

**Required:**

(a) Describe the audit procedures that should be performed on each of the following:

(i) Accounts payables (3 marks)

(ii) Purchases cut-off (2 marks)

(b) Comment on the appropriateness of the opinions suggested in situation 1 and 2 above. (4 marks)

(c) Identify and explain four (4) audit risks in the audit of the financial statements of Metro Ltd. (8 marks)

(d) Explain how the appointment of the Engagement Partner to the Board of Directors consists of an ethical threat. (3 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

(a) Manda is an intern in Annex Chartered Accountants. She has challenges in understating the paragraphs in the new format of the auditor's report such as the Key Audit Matters paragraphs and the Other Matter and Emphasis of Matter paragraphs. She has asked you to explain what these paragraphs mean and the information they contain.

**Required:**

Explain to the trainee Auditor, the meaning and use of the following paragraphs in relation to the independent auditor's report:

(i) Key Audit Matters paragraph (2 marks)

(ii) Other Matter paragraph (2 marks)
(iii) Basis of opinion paragraph (2 marks)

(b) Phone World Ltd was established two (2) years ago to provide mobile phone services. The Company has its own mobile brand that it sells and operates as an agent for a foreign firm on commission basis for another brand of phone.

Phone World Ltd operates local relay stations that are linked to a central computer which connects calls to other users. The cost of new relay stations and central computers were capitalized and written off over a period of six (6) years. Establishing new networks of relays and subscribers will result in the company making losses for at least three (3) years as it tries to recover the cost of investment in the new infrastructure. The investments in the new network and central computers was made after being advised by an Auditor who was assigned to the audit of Phone World Ltd. The computers in the Statement of Financial Position at year end were valued at K1,200,000.

The previous auditors expressed an unmodified audit opinion instead of a qualified audit opinion. This was a result of not being conversant with the audit of a company in the mobile phone sector and did not even seek services of an expert. During the year, auditors bought shares in a subsidiary of Phone World Ltd. This matter has not been disclosed to the client when accepting the engagement with Phone World Ltd. The Senior Auditor is married to the daughter to the Managing Director of Phone World Ltd. and this information has not been disclosed to the Engagement Partner. Further, the Engagement Partner and the Chief Accountant have been childhood friends. The two (2) recently met in private meetings and support the same team in the local Zambian football league.

One (1) of the shareholders in Phone World Ltd injected a large amount of money into the business suspected of being proceeds of crime. The auditors hid this information from law enforcement agencies. The Managing Partner owned a business which was supplying large quantities of phones and this interest was not disclosed to the client when they were appointed as auditors. This will be the first time your audit firm will audit a company in the mobile network sector.

**Required:**

(i) Using the information provided, identify and explain five (5) ethical issues. (10 marks)

(ii) Describe four (4) substantive audit procedures that should be performed on the figure of computers in the financial statements of Phone World Ltd. (4 marks)

**[Total: 20 Marks)**

**END OF PAPER**

# CA 2.3 AUDITING PRINCIPLES AND PRACTICE SUGGESTED SOLUTIONS

## SOLUTION ONE

(a) **Audit risk for obsolete inventory:**
According to IAS 2 I*nventory*, inventory is required to be valued at the lower of cost and net realizable value. Net realizable value being the expected proceeds from selling the inventory.

The risk with regards inventory is that it may be valued incorrectly because of inadequate provision for obsolescence. The net realizable value for obsolete inventory is likely to be lower than cost and if the provision for obsolesces is understated, it will result in inventory being valued at the higher figure of cost contrary to the provisions of IAS 2.

(b) **Suggested inventory count instructions:**
1. Supervision should be done by a senior person preferably one not involved in handling inventory.
2. Counts should be in teams of two (2) people one (1) does the count and the other one does the recording on the inventory count sheets.
3. All inventory should be clearly marked for easy of identification.
4. All counts should be done systematically and orderly and all items counted labeled as such.
5. Inventory count sheets should be pre-numbered.
6. All counts should be recorded in ink.
7. Damaged and obsolete items should be identified and isolated and recorded as such.
8. No movements of inventory during the inventory count.

(c) **(i) Composition of the board of directors of BB Plc.:**

- Chris is holding two (2) positions of board chairman and Chief Executive Officer when these positions should be held by two separate people. This is contrary to corporate governance guidelines.

- The board comprises three (3) executive board members and only two (2) non-executive members. The board is supposed to balance towards non-executive directors. According to corporate governance the board should have a balance of executive and non-executive directors with at least half being non-executive directors.

(ii) **Importance of non-executive board members**:
Non-executive board members bring with them the independence that they possess and are more objective compared to executive board members. Further the independent board members bring with them the skills that they pose for the benefit of the rest of the board and the company.

**Roles of Non-Executive Directors:**
- They play a critical role as members of the audit committee

- They comprise the remuneration committee which set the remuneration of executive directors.
- Play a pivotal role in the nomination of directors
- Provide the needed oversight on executive management and directors.
- They provide independent views on the performance of the company and the risks and internal controls implemented by management.

(d) **(i)** **Factors to consider in forming modified opinion:**

There are three forms of modified opinions that auditors can give. In deciding which form of modification of the audit opinion, auditors consider the following matters:

- Whether the matter of concern is material. If it is not material it is unlikely that it will result in a modified opinion.
- The pervasiveness of the matter to the financial statements. The impact the matter of concern on the users of financial statements.

**When sufficient appropriate evidence has been obtained:**

| | |
|---|---|
| If matter is material not pervasive | Qualified opinion |
| If matter is material and pervasive | Adverse opinion |

**When there is a limitation of scope:**

| | |
|---|---|
| If matter is material but not pervasive | Qualified opinion |
| If matter is material and pervasive | Disclaimer of opinion |

**(ii)** **Suggested audit opinion for BB Plc.:**

The matters of concern for the auditors are the refusal by management to increase the provision for obsolesces and refusal to extend the assessment of the ability of the company as a going concern to at least 12 months. Both matters are important in terms of impact on the users of the financial statements. Understatement of the provision for obsolesces will result in an overstatement of the profit figure an important figure in decision making.

Refusal to extend the assessment of going concern is significant because it may be that the company is not a going concern and this would impact the basis of preparing the financial statements.

In view of the fact that both matters are **material and pervasive** to the financial statements, an **adverse opinion** is recommended.

(iii) **Material uncertainty in the Emphasis of matter paragraph:**

The suggestion by the Chief Finance Officer arises from material uncertainty with regards the ability of BB Plc. as a going concern. He would not want this matter to be reported because it may cause the bank to enforce the security on the loan by BB Plc.

The suggestion that disclosure of the material uncertainty should be included in the emphasis of matter paragraph is not correct. The emphasis of matter paragraph is used by the auditor to report on matters that are correctly recorded in the financial statements and the auditor wishes to make mention of such matters in the financial statements.

Where there is material uncertainty, the impact on the audit report depends on the adequacy of disclosure by management in the financial statements. In this case, management does not wish to disclose the material uncertainty for fear of the bank enforcing the security on the loan.

Assuming that the going concern basis of preparing the financial statements of BB Plc. is appropriate, but there is material uncertainty the correct opinion is a qualified or adverse opinion.

**SOLUTION TWO**

(a) **Action to take on review of client information:**

**Client one**
The auditors will not be in breach of the fundamental principle of confidentiality by accepting to give evidence in a court case involving its client. The firm needs not to get the permission of the management of client one to go and give evidence. Failure to give evidence by the firm may result in the firm being cited for contempt of court.

**Client two**
The firm is obliged to disclose to a competent authority any activities that amount to money laundering by a client company. In this case, the firm will not be in breach of the principle of confidentiality because the client is involved in money laundering. If the firm is not clear on the action to take it may seek legal advice on how to deal with this.

(b) (i) **Preparing and submission of tax returns:**
The completion and submission of tax returns on behalf of a client company does not give rise to an ethical dilemma as long as management takes responsibility for the returns.

**Determination of tax amount in the financial statements:**
Helping management of Tanganyika Ltd compute the amount of tax that should be included in the financial statements results in a self-review threat.

For non-public interest entity such as Tanganyika Ltd the firm could assist as long as suitable safeguards are put in place such as different teams providing the assistance and different team providing the assurance engagement.

**(ii) Internal controls in wages and salaries systems:**

1. The Human Resources Officer is responsible for recruitment, determination of salaries, and preparation of payroll and writing to the banks for bank transfers. These roles should be done by different people so that there is clear segregation of duties.
2. The foreman is responsible for the recruitment of casual workers and determining the rate of pay. There should be segregation of duties so that these roles are performed by two different people as a control.
3. Clock cards should be introduced to enable casual workers log in at entry and log out at the end of the shift. The number of hours worked can be determined more accurately this way.
4. Different people should draw cash for wages and packs the cash in pay-packets.
5. Casual workers should sign for the pay packets and no pay packets should be collected on behalf of other people.
6. Uncollected pay packets should be kept in a safe and banked promptly

**SOLUTION THREE**

(a) **How auditors are regulated by ZICA**

1. Membership
   To become a member (not student membership), one must pass exams and fulfill Practical Experience Requirement (PER).
2. Continuing Professional Development (CPD)
   Members are required to continue to undertake their CPD and submit annual CPD returns.
3. Practitioners
   To be a practitioner, one must pass the Competence Practice Examination (CPE)
4. Practice Reviews
   All practitioners are subjected to practice reviews, which are carried out by ZICA.
5. Code of Ethics
   ZICA has a code of Ethics, which all members and practitioners must follow.
6. Investigation and discipline
   ZICA monitors its members' work and conduct and may impose punitive measures such as fines or exclusion from membership.

## (b) Subsequent events – Kwanga Co

## Event 1 – Trade receivable

(i) **Amendment**

1. The event is an adjusting event as it provides additional / further evidence that existed at the reporting date.
2. The financial statements should be amended so that receivables balance is not overstated**.**

(ii) **Audit procedures**

1. Discuss with management that the bad debt should be written off.
2. Review the court ruling documentation to confirm the amount receivable.
3. Review the correspondence from the customer to confirm his acknowledgement to that he will pay the remaining debt.
4. Obtain management representation confirming that bad debt will be written off.
5. If financial statements are amended, verify that the amendment is correct**.**

(iii) **Impact on audit opinion**

1. The overstatement is material 2.9% (290/10,000) to total assets, but not pervasive. *(Note: materiality based on profit before tax is also acceptable).*
2. If management amends the financial statements correctly, then, the audit opinion will not be modified.
3. If management refuses to amend the financial statements, then, the audit opinion will be modified with a qualified opinion due to disagreement on a material matter.
   (N.B. If assumed that the matter is both material and pervasive, an adverse opinion will be appropriate)

**Event 2 - Inventory**

(i) **Amendment**

1. The event is a non-adjusting event as it does not provide evidence of conditions at the period end. The event occurred after the reporting date.
2. This is considered as a non-adjusting event and the financial statements should not be amended according to IAS 10.

(ii) **Audit procedures**

1. Discuss with management that the matter should be disclosed since it is material.
2. Obtain written representation confirming that disclosure will be made.
3. If disclosure is made, then, review its adequacy and correctness.
4. Enquire from management the basis/assumptions used to estimate the net realisable value (zero value).
5. Inspect the inventory to confirm if it is not in a saleable condition.

(iii) **Impact on audit opinion**

1. The overstatement is material 2.5% (250/10,000) to total assets, but not pervasive. (Note: materiality based on profit before tax is also acceptable).
2. If disclosure is made adequately and correctly, then, the audit opinion will not be modified.
3. If management refuses to disclose a material event, then, the audit opinion will be modified with "except for opinion" due to disagreement on a material matter.

**SOLUTION FOUR**

(a) (i) A description of audit procedures for:

**Accounts payables:**

- Obtain a sample of payables balance and compare with the payables ledger control total. The type of sample will depend on the outcome of tests of control within the payables ledger to confirm if they agree.
- Obtain a sample by using random sampling which contain different account balances for instance that contain nil, credit, debit balances and then perform confirmation with payables if they agree.
- Obtain suppliers balances on statements of accounts and agree with balances on their accounts.

**(ii) Purchases cut –off:**

- Take note of the GRNs that were issued before the year end and obtain the GRN that was issued immediately after the end of the year and confirm if they agree.
- Obtain a sample of GDNs and take note of the date to confirm whether they are recorded in the current accounting period.
- For the GRNs that were issued before the year end, confirm whether the inventory had been included in the year-end inventory and confirm whether payables include other trade payables accrued by inspecting relevant documents or they have been sold.
- Obtain GRNs issued before the year end and confirm inventory has been included in count instructions recorded at the year end. A review of purchase ledger to confirm whether relevant invoices have been posted to supplier's accounts after the year end.

(b) **Comment on the opinions regarding going concern issues:**

**Situation 1**
With regards to going concern, an adverse opinion can only be given when the use of going concern assumption basis of accounting is inappropriate. This was not the case in this situation since management had adequately disclosed material uncertainty properly. The appropriate opinion should have been unmodified opinion.

**Situation 2**
Unmodified audit opinion can only be expressed when there is a matter of uncertainty and management has disclosed the matter appropriately. However, in this case management was unwilling to extend the going concern assessment. The appropriate audit opinion in this case should have been a qualified or a disclaimer.

(c) **Audit risks associated with credit sales:**

- Credit sales- there is a chance the amount owing will not be paid. Auditors need to assess the possibility of recovering the debt and whether an allowance for receivables should be made.
- Some of the spare parts that the company sells on credit are for rare models of vehicles which are not common in Zambia. It is unpredictable whether the customers will be found for such cars and may loss the commission to be paid to them.

- There is a possibility of poor credit control system as credit approvals are made by the sales clerk.
- There is a possibility of incorrect recording of credit sales by staff who are not experienced to do so.

(d) **Partner appointed as board member:**

A partner on the board will not be impartial as he needs to protect his financial interest on one hand and on the other, to protect the interest of the audit firm. It will be difficult for him to maintain the principle of objectivity. Appointment to the board of directors creates a self-interest threat for the Engagement Partner.

The Engagement Partner should resign from the Board of Directors of Kwanga. Alternatively, he should be replaced as Engagement partner on this audit.

**SOLUTION FIVE**

(a) **Explanations of terms that appear in the independent auditors' report:**

(i) **Key Audit Matters**
These are matter in the auditor's judgment that are of importance that they came across during the audit of financial statements of Phone World. The matters should be among those that were reported in the communication with those charged with governance.

KAMs serve the purpose of enhancing transparency and enhance the communication value of the audit report**.**

(ii) **Other matter paragraph**
This is a paragraph that contains matters that are not reported and disclosed in the financial statements but in the auditors' judgment are of importance and should be communicated to the users of financial statements. They can also enhance the understanding of the auditor's responsibilities regarding the audit report. For instance, that the auditor did not resign despite failing to collect sufficient audit evidence.

(iii) **Basis for opinion:**
This is a paragraph in which the auditors explain for the information of users of the financial statements the basis for which the audit opinion has been reached. Regardless of the opinion, modified or unmodified, the basis for reaching a particular opinion is explained in this paragraph.

This paragraph enables the users of financial statements to understand how the opinion was arrived at by the auditor.

(b) (i) **Ethical matter in the audit of Phone World Ltd:**

1. **Accepting work for which they were not qualified:**
It is unprofessional for an auditor to accept work for which they are not qualified. It is against professional ethics. The audit opinion expressed could have been different if the firm had experience and knowledge of the industry the client was in.

2. **The auditors owned shares in a company which is a subsidiary of Phone World Ltd.:**
Any information which is of financial interest should be disclosed to the client. Lack of disclosure of information constitutes lack of integrity and honesty. This is against rules of professional code of ethics.

3. **Links with shareholder suspected of money laundering:**
There was a shareholder who was being suspected of money laundering. This is a crime and as auditors they were expected to inform relevant authorities.This matter is one of the exceptions to rules of confidentiality. By keeping quiet and not informing law enforcement agencies, auditors were in breach of rules of professional ethics.

4. **The Senior Auditor has married the daughter of the Managing**

**Director.**
The senior auditor will not be impartial when carrying out the audit.

5. **Provision on non-audit services**.
   The auditor assigned has been providing investment advice to the client. This constitutes a breach as the same auditor is likely performing audit procedures on the same information they assisted to prepare.

6. **The Senior Auditor and the Chief Accountant have been childhood friends** and watch football together. This means that the two are familiar with each other and this will lead to the impairment of objectivity of the auditor.

(c) **Audit procedures for Computers**:

- Obtain the purchase documents such as invoices and review them. They should indicate the name of the company.
- Computer will have security codes that are designed to prevent fraud and theft. The codes may be invisible to the eye but visible to the user by special machines
- Obtain lease documents for computers on lease and the documents will reveal who the real owner is**.**
- Obtain the fixed assets register to confirm if details about computers agree with physical details of the computer
- Auditor should conduct an inspection to confirm if these computers do exist.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA2.4: TAXATION

THURSDAY 14 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

10. A Taxation table is provided from page 2 to page 6 on the question paper.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

## Taxation Table
## Income Tax

**Standard personal income tax rates**

| Income band | Taxable amount | Rate |
|---|---|---|
| K0.01 to K57,600 | first K57,600 | 0% |
| K57,601 to K81,600 | next K24,000 | 20% |
| K81,601 to K106,800 | next K25,200 | 30% |
| Over K106,800 | | 37.5% |

**Income from farming for individuals**

| | | |
|---|---|---|
| K0.01 to K57,600 | first K57,600 | 0% |
| Over K57,600 | | 10% |

**Company income tax rates**

| | |
|---|---|
| On income from manufacturing and other | 30% |
| On income from farming | 10% |
| On income from mineral processing | 30% |
| On income from mining operations | 30% |
| On income of Banks and other Financial Institutions | 30% |

## Mineral Royalty

**Mineral Royalty on Copper**

| Norm price range | Incremental value | Mineral Royalty rate |
|---|---|---|
| Less than US$4,000 | Less than $4,000 | 4.0% of norm value |
| From US$4,000 but less than US$5,000 | Next $1,000 | 6.5% of norm value |
| From US$5,000 but less than US$7,000 | Next $2,000 | 8.5% of norm value |
| US$7,000 and above | Over $7,000 | 10% of norm value |

**Mineral Royalty on other minerals**

| Type of mineral | Mineral Royalty Rate |
|---|---|
| Cobalt and Vanadium | 8% of norm value |
| Base Metals (Other than Copper, Cobalt and Vanadium) | 5% of norm value |
| Energy and Industrial Minerals | 5% of gross value |
| Gemstones | 6% of gross value |
| Precious Metals | 6% of norm value |

## Capital Allowances

## Capital Allowances

**Implements, plant and machinery and commercial vehicles:**

| | | |
|---|---|---|
| Wear and Tear Allowance – | Standard wear and tear allowance | 25% |
| | Used in manufacturing and leasing | 50% |
| | Used in farming and agro-processing | 100% |
| | Used in mining operations | 20% |

**Non- commercial vehicles**

| | |
|---|---|
| Wear and Tear Allowance | 20% |

**Industrial Buildings:**

| | |
|---|---|
| Wear and Tear Allowance | 5% |
| Initial Allowance | 10% |
| Investment Allowance | 10% |

**Low Cost Housing** **(Cost up to K100,000)**

| | |
|---|---|
| Wear and Tear Allowance | 10% |
| Initial Allowance | 10% |

**Commercial Buildings**

| | |
|---|---|
| Wear and Tear Allowance | 2% |

**Farming Allowances**

| | |
|---|---|
| Development Allowance | 10% |
| Farm Works Allowance | 100% |
| Farm Improvement Allowance | 100% |

## Presumptive Taxes

**Turnover Tax**

**Annual Turnover**

| | |
|---|---|
| K0.01 to K12,000 | 0% |
| K12,001 to K800,000 | 4% |

**Rental income Tax**

| | |
|---|---|
| K0.01 to K12,000 | 0% |
| K12,001 to K800,000 | 4% |
| On income above K800,000 | 12.5% |

**Presumptive tax for transporters**

| **Seating capacity** | **Tax per annum** | **Tax per quarter** |
|---|---|---|
| | K | K |
| Less than 12 passengers and taxis | 1,080 | 270 |
| From 12 to 17 passengers | 2,160 | 540 |
| From 18 to 21 passengers | 4,320 | 1,080 |
| From 22 to 35 passengers | 6,480 | 1,620 |
| From 36 to 49 passengers | 8,640 | 2,160 |
| From 50 to 63 passengers | 10,800 | 2,700 |
| From 64 passengers and over | 12,960 | 3,240 |

**Property transfer tax**

| | |
|---|---|
| Rate of tax on realised value of land, buildings and shares | 5% |
| Rate on realised value of intellectual property | 5% |
| Rate on realised value of mining right for an exploration licence | 5% |
| Rate of tax on realised value of a mining right for a mining licence | 10% |
| Rate of tax on realised value on a mineral processing licence | 10% |

## Value Added Tax

| | |
|---|---|
| Registration threshold | K800,000 |
| Standard Value Added Tax Rate (on VAT exclusive turnover) | 16% |

## Customs and Excise duties on used motor vehicles

| | Aged 2 to 5 years | | Aged 5 years and over | |
|---|---|---|---|---|
| **Motor vehicles for the transport of ten or more persons, including the driver** | **Customs duty K** | **Excise duty K** | **Customs duty K** | **Excise duty K** |
| Sitting capacity of 10 but not exceeding 14 persons including the driver | 17,778 | 22,223 | 8,889 | 11,112 |
| Sitting capacity exceeding 14 but not exceeding 32 persons | 38,924 | 0 | 13,840 | 0 |
| Sitting capacity of 33 but not exceeding 44 persons | 86,497 | 0 | 19,462 | 0 |
| Sitting capacity exceeding 44 persons | 108,121 | 0 | 43,248 | 0 |

| | Aged 2 to 5 years | | Aged 5 years and over | |
|---|---|---|---|---|
| **Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars** | **Customs duty** | **Excise duty** | **Customs duty** | **Excise duty** |
| | **K** | **K** | **K** | **K** |
| **Sedans** | | | | |
| cylinder capacity not exceeding 1000 cc | 12,490 | 10,824 | 7,136 | 6,185 |
| Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc | 16,058 | 13,917 | 8,564 | 7,422 |
| Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc | 16,545 | 21,508 | 8,423 | 10,950 |
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc | 18,049 | 23,463 | 10,528 | 13,687 |
| Cylinder capacity exceeding 3000 cc | 22,561 | 29,329 | 12,032 | 15,642 |
| **Hatchbacks** | | | | |
| cylinder capacity not exceeding 1000 cc | 10,705 | 9,278 | 7,136 | 6,185 |
| Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc | 14,274 | 12,371 | 8,564 | 7,422 |
| Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc | 15,041 | 19,553 | 8,423 | 10,950 |
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc | 16,545 | 21,508 | 10,523 | 13,687 |
| Cylinder capacity exceeding 3000 cc | 19,553 | 25,419 | 12,032 | 15,642 |
| **Station wagons** | | | | |
| cylinder capacity not exceeding 2500 cc | 16,545 | 21,508 | 9,024 | 11,731 |
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc | 18,049 | 23,463 | 13,357 | 17,598 |
| Cylinder capacity exceeding 3000 cc | 22,561 | 29,329 | 18,049 | 23,463 |
| **SUVs** | | | | |
| Cylinder capacity not exceeding 2500 cc | 21,057 | 27,374 | 9,024 | 11,732 |

| | | | | |
|---|---|---|---|---|
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc | 24,065 | 31,284 | 13,357 | 17,598 |
| Cylinder capacity exceeding 3000 cc | 28,577 | 37,150 | 18,049 | 23,463 |
| | **Aged 2 to 5 years** | | **Aged 5 years and over** | |
| **Motor vehicles for the transport of goods -with compression-ignition internal combustion piston engine (diesel or semi-diesel):** | **Customs duty** | **Excise duty** | **Customs duty** | **Excise duty** |
| | **K** | **K** | **K** | **K** |
| **Single cab** | | | | |
| GVW exceeding 1.0 ton but not exceeding 1.5 tonnes | 21,926 | 9,501 | 8,770 | 3,801 |
| GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes | 26,311 | 11,402 | 15,348 | 6,651 |
| GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes | 30,697 | 13,302 | 17,541 | 7,601 |
| **Double cabs** | | | | |
| GVW exceeding 3 tonnes but not exceeding 5 tonnes | 30,697 | 13,302 | 24,119 | 10,452 |
| Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, **with spark ignition internal combustion piston engine** | 33,766 | 14,632 | 26,531 | 11,497 |
| **Panel Vans** | | | | |
| GVW not exceeding 1.0 ton | 13,353 | 5,786 | 7,630 | 3,061 |
| GVW exceeding 1.0 ton but not exceeding 1.5 tonnes | 15,348 | 6,651 | 8,770 | 3,801 |
| GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes | 17,541 | 7,601 | 15,348 | 6,651 |
| GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes | 21,926 | 9,501 | 17,541 | 7,601 |
| **Trucks** | | | | |
| GVW up to 2 tonnes | 13,907 | 10,662 | 6,413 | 4,916 |
| GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes | 15,453 | 11,847 | 7,726 | 5,923 |
| GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes | 24,724 | 18,955 | 9,272 | 7,108 |
| GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes | 30,905 | 23,694 | 11,744 | 9,004 |
| GVW exceeding 20 tonnes | 51,898 | 0 | 19,462 | 0 |
| GVW exceeding 20 tonnes, **with spark ignition internal combustion piston engine** | 37,086 | 28,432 | 13,907 | 10,662 |

**Surtax**

On all motor vehicles aged more than five (5) years from year of manufacture K2,000

**Customs and Excise on New Motor vehicles**
**Duty rates on:**

**1. Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:**

| | |
|---|---|
| **Customs Duty:** | |
| Percentage of Value for Duty Purposes | 30% |
| Minimum Specific Customs Duty | K6,000 |
| **Excise Duty:** | |
| Percentage of Value for Duty Purposes for Excise Duty Purposes | |
| Cylinder capacity of 1500 cc and less | 20% |
| Cylinder Capacity of more than 1500 cc | 30% |

**2. Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:**

| | |
|---|---|
| **Customs Duty** | |
| Percentage of Value for Duty Purposes | 15% |
| Minimum specific Customs Duty | K6,000 |
| **Excise Duty:** | |
| Percentage of Value for Duty Purposes for Excise Duty Purposes | 10% |

**3. Buses/coaches for the transport of more than ten persons**

| | |
|---|---|
| **Customs Duty:** | |
| Percentage of Value for Duty Purposes | 15% |
| Minimum Specific Customs Duty | K6,000 |
| **Excise Duty:** | |
| Percentage of Value for Duty Purposes for Excise Duty Purposes | |
| Seating Capacity of 16 persons and less | 25% |
| Seating Capacity of 16 persons and more | 0% |

4. **Trucks/lorries with gross weight exceeding 20 tonnes**

| | |
|---|---|
| **Customs Duty:** | |
| Percentage of Value for Duty Purposes | 15% |
| **Excise Duty:** | |
| Percentage of Value for Duty Purposes for Excise Duty Purposes | 0% |

## SECTION A

**This question is compulsory and must be attempted.**

**QUESTION ONE (COMPULSORY)**

Mukango Plc is a Zambian resident company engaged in manufacturing. The company listed its shares on the Lusaka Securities Exchange (LuSE) in January 2023 and 28% of the issued equity shares were taken up by indigenous Zambians. The directors estimated the provisional income for the tax year 2023, to be K2,800,000 which was calculated correctly and paid on the appropriate due dates.

The following is an extract from the statement of profit or loss for the year ended 31 December 2023:

| | | K |
|---|---|---|
| Revenue | | 25,400,000 |
| Cost of sales | (Note 1) | (13,240,000) |
| Gross profit | | 12,160,000 |
| Other income | (Note 2) | 200,000 |
| Selling & distribution expenses | (Note 3) | (2,240,000) |
| Administration expenses | (Note 4) | (7,200,000) |
| Profit before tax | | 2,920,000 |

The following additional information is relevant:

**Note 1: Cost of sales**

The cost of sales comprises:

| | K |
|---|---|
| Opening inventory | 1,314,600 |
| Purchases | 12,800,000 |
| Depreciation | 211,000 |
| Loss on disposal of old office equipment (refer to note 5) | 44,000 |
| Closing inventories | (1,129,600) |
| | 13,240,000 |

**Note 2: Other income**

This comprises of dividends from Zambian non-mining companies of K38,500, royalties of K63,750 and bank interest of K97,750. The amounts of other income represent the actual cash received.

**Note 3: Selling and distribution expenses**

These comprise:

| | K |
|---|---|
| Gifts to customers of company branded diaries costing K200 each | 130,000 |
| Advertising expenses | 350,000 |
| Entertaining customers & suppliers | 190,000 |
| Commissions paid to distributors & other agents | 800,000 |
| Other allowable selling expenses | 770,000 |
| | 2,240,000 |

**Note 4: Administrative expenses**

These comprise:

| | K |
|---|---:|
| Penalties for late payment of the balance of income tax for 2022 | 204,000 |
| Accountancy and audit fees | 280,000 |
| Fines for breach of safety regulations | 32,000 |
| Loans to former employees previously written off now recovered | (67,000) |
| Increase in general allowance for receivables | 130,000 |
| Trade debts written off | 210,000 |
| Other allowable administration expenses | 6,411,000 |
| | 7,200,000 |

Other allowable administrative expenses include annual emoluments amounting to K980,000 and K860,000 payable to the Managing Director and the Finance Director respectively. These Directors are accommodated in company owned houses for which they pay no rent. If the houses were let out to any other person on a commercial basis, the company could have charged gross rentals amounting to K17,800 per month for each house.

**Note 5: Implements, Plant & Machinery**

At 1 January 2023, the company hold the following implements, plant & machinery:

| **Asset** | **Income tax value** | **Original cost** |
|---|---:|---:|
| | **K** | **K** |
| Old office equipment | 50,000 | 100,000 |
| Manufacturing Equipment | 100,000 | 200,000 |
| Mitsubishi truck | 50,000 | 200,000 |

The company entered into the following capital transactions during the year ended 31 December 2023:

| **Date** | **Transaction** | **Cost/(proceeds)** |
|---|---|---:|
| | | **K** |
| 23 February 2023 | Bought Toyota prado car (2,900cc) | 400,000 |
| 1 March 2023 | Toyota Hilux double cab (3,000 cc) | 600,000 |
| 20 April 2023 | Bought new office equipment | 150,000 |
| 25 April 2023 | Sold old office equipment | (120,000) |
| 30 June 2023 | Bought a Hino Light Truck | 560,000 |
| 31 October 2023 | Bought a new Manufacturing Machinery | 1,100,000 |

The Toyota Prado car and Toyota Hilux are used by the Finance Director and Managing Director respectively on a personal-to-holder basis. It has been agreed with the Commissioner General that the private use in each vehicle is 40%.

**Note 6: Buildings**

On 1 July 2023, the company acquired a second-hand building at a cost of K2,900,000 which comprises:

| | K |
|---|---|
| Land | 200,000 |
| Staff canteen | 340,000 |
| Factory | 2,100,000 |
| Administrative offices | 260,000 |
| | 2,900,000 |

The building was brought into use on 1 August 2023.

**Required:**

(a) State the due date for the submission of the return of provisional income and explain the consequences for Mukango Plc, of submitting the return late. (2 marks)

(b) Calculate the amount of provisional income tax paid during the year ended 31 December 2023. Your answer should show the relevant due date(s) and the amount of tax paid on each due date(s). (5 marks)

(c) Calculate the capital allowances claimable by the company for the tax year 2023 on:

(i) Implements, plant and machinery (9 marks)

(ii) Buildings (6 marks)

(d) Calculate the taxable business profit for the company for tax year 2023. (11 marks)

(e) Calculate the amount of company income tax payable by Mukango Plc for the tax year 2023. (7 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any three (3) questions.**

**QUESTION TWO**

Simon Kasongole was employed as an Electrician on a three-year renewable fixed term contract, at KZL Constructions Limited as from 1 May 2020 to 30 April 2023 under the following conditions:

| | |
|---|---|
| Annual basic salary | K150,000 |
| Annual transport allowance | 5% of annual basic salary |
| Annual housing allowance | 15 % of annual basic salary |

He was paid monthly on the last day of each month and Pay As You Earn amounting to K18,750 was deducted from his employment income in the tax year 2023.

During February 2023, Kasongole was required to travel out of town for employment purposes for five (5) days. The company paid him an accommodation and meals allowance of K1,500 per day and K300 per day to cover the cost of the travel expenses he incurred over this period.

On expiry of his contract on 30 April 2023, the company paid him cash in lieu of leave of K6,250, repatriation pay of K12,500 and gratuity of 30% of his cumulative basic salary up the date of expiry of the contract. He had always contributed 5% of his gross earnings as NAPSA contribution.

Simon decided not to renew his contract with KZL Constructions Limited and on 1 May 2023, he commenced in business as a Self-employed Electrician, undertaking electrical wiring and installations for newly built residential houses for a wide range of clients. He expected that his annual revenue from this business was going to exceed K800,000.

On 1 May 2023, he purchased equipment costing K40,000, and a motor van at a cost of K160,000. It was agreed with the commissioner General that he will have private use in the motor car of 25%. Kosongole will prepare the first accounts for the period ending 31 December 2023 and annually thereafter. His estimated tax adjusted business profit from the business for the period ending 31 December 2023 was K145,000 before capital allowances.

KZL Constructions has not engaged someone to replace Simon from the time his employment contract with the company expired. However, on 1 June 2023, the company entered into an agreement with Simon, to use his services as a self-employed electrician on its construction projects. Under this agreement, KZL Constructions Ltd assigned Simon on the projects to work on. He was required to report at 08:00 hours at the offices of KZL Ltd and to work five hours every day from Monday to Friday on construction projects assigned to him by KZL. The company provided him with transport to the construction sites and also provided all the equipment and material he needed for the performance of his duties in relation to the contract. However, he was assisted by his own employees when performing his tasks on these projects.

Simon provided for his own insurance cover, as well as, that of his assistants in case of any accidents occurring, whilst performing their duties on these projects. He was also required to cover the cost of any faulty electrical installations and compensate KZL Constructions Ltd for any damage the company may suffer as a result of defective electrical installations. Simon invoices the company an agreed amount of K15,000 at the end of each month for the work performed. The tax adjusted profit figure before capital allowances from self-employment of K145,000 given above does not include any income generated by Simon from KZL Constructions Ltd.

**Required:**

(a) Discuss the criteria the Zambia Revenue Authority will use to establish whether Simon Kasongole was an employee or an independent self-employed contractor in relation to the agreement he entered into with KZL Constructions Ltd, on 1 June 2023, specifically describing:

(i) Any four (4) factors indicating that he was an employee of KZL Constructions Ltd. (4 marks)

(ii) Any four (4) factors indicating that he was an independent self-employed contractor. (4 marks)

(b) Assuming that Simon was held to be self-employed in relation to the contract he entered into with KZL Contructions Ltd on 1 June 2023, compute his final taxable business profit from his business in the tax year 2023. (4 marks)

(c) Calculate his total final income tax payable for the tax year 2023. **You should clearly indicate in your computation, using a zero (0), any benefits provided to Simon in the tax year 2023, which are not taxable.** (8 marks)

**[Total: 20 Marks]**

## QUESTION THREE

You are employed in the Tax department of a firm of Chartered Accountants who are preparing a training workshop for newly recruited trainee accountants. The Tax Manager has asked you to develop notes on the following matters:

1. Qualities of a good tax system
2. The Self-assessment system
3. Basis periods and basis of assessment for business profits

**Required:**

Prepare notes with sufficient details:

(a) Explaining any four (4) qualities of a good tax system. (4 marks)

(b) Describing the operation of the self-assessment system and explaining the types of taxpayers assessed under self-assessment. (6 marks)

(c) Discussing the basis rules used to determine the basis of assessment for business profits, specifically:

(i) Explaining the meaning of the Current Year Basis of Assessment and Preceding Year Basis of Assessment clearly describing the circumstances in which each rule is applied. (3 marks)

(ii) Outlining the commencement rules, which are applied to determine the basis of assessment for profits made in the year a trade commences and clearly describing the circumstances in which each rule applies. (3 marks)

(iii) Outlining the cessation rules, which are applied to determine the basis of assessment for profits made in the year a trade ceases, clearly explaining the circumstances in which each rule applies. (4 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

You are employed in the Tax department of a firm of Chartered Accountants which is preparing a training workshop for newly recruited trainee accountants. The Tax Manager has asked you to develop notes on the following topics:

1. How the provision of taxation services may create a self-review threat.

2. The difference between tax avoidance and tax evasion.

The Tax Manager has additionally asked you to prepare the VAT return for Mulungushi Quarries Trading Limited for the month of November 2023 and you have been given the following information relating to the transactions entered into by Mulungushi Quarries Trading Ltd during the month of November 2023:

1. On 1 November 2023, the company made sales amounting to K1,030,000 out of which K330,000 were zero rated, K154,500 were exempt supplies and the balance were standard rated supplies. The company offered its customers an early settlement discount of 1.5%, which was taken up by 30% of the customers.

2. On 5 November 2023, purchases were made from Jaids Ltd, a registered supplier amounting to K638,000, whilst purchases from Ndambu enterprises, an unregistered

supplier amounted to K80,000. K464,000 (VAT inclusive) of the purchases from Jaids Ltd were standard rated, K31,000 were zero rated and the balance were exempt supplies.

3. Standard rated expenses for the month of November 2023 comprised the following:

| | K |
|---|---|
| Entertaining customers | 4,950 |
| Motor car expenses | 5,025 |
| Telephone bills | 605 |
| Stationery | 1,250 |
| Utility bills | 800 |
| | 12,630 |

K160 of the utility bills were incurred in respect of a company house in which the company's Finance Director is accommodated.

4. On 25 November 2023, the company sold standard rated office equipment which was excess to its requirements for K464,000 (VAT inclusive).

5. On 26 November 2023 the company acquired a motor car at a cost of K696,000 (VAT inclusive) and a delivery van at a cost of K870,000 (VAT inclusive). VAT on the two vehicles was charged at the standard rate and both vehicles are used wholly and exclusively for business purposes. They are used to make both taxable and exempt supplies in proportion to sales.

6. On 30 November 2023, the company wrote off a debt of K10,730 (VAT inclusive) in respect of a standard rated invoice for which payment was due on 10 February, 2022.

7. Unless specifically stated the transactions are stated exclusive of VAT.

**Required:**

(a) Prepare notes to be used in the training session explaining:

(i) How the provision of taxation services may create a self-review threat, to compliance with the fundamental principle of the professional code of ethics for accountants. (2 marks)

(ii) The differences between tax avoidance and tax evasion. (4 marks)

(b) Calculate the VAT payable/refundable in respect of the month of November 2023. **You should clearly show using a zero (0) items on which VAT is not chargeable or recoverable in your computation.** (14 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

In June 2023, Lubinda purchased a second hand 2800cc Toyota Alphard Station Wagon from Japan at a price of US$6,500. The vehicle was manufactured in January 2015. The charge for insurance was US$500 and freight up to the port of Dare salaam was $2,500, where clearing and forwarding costs of US$200 were incurred. He further incurred incidental costs of transporting the vehicle from the Nakonde border post to Lusaka amounting to $1,000. In Lusaka, Interpol clearance fee was K200, vehicle registration fees were K2,000 comprehensive motor car insurance costs were K8,000 and Road tax was K400.

The exchange rate provided by the Commissioner General at the time of importation of the vehicle was K19.50 per US$. However, the exchange rates quoted in a local Bureau De Change was K19.45 per US$.

During the year he additionally had the following capital assets transactions:

1. On 15 February 2023, he sold five acres of land for K300,000. This was the amount before deduction of estate agent fees of 2% of the sales value. He acquired the land from a traditional leader for K100,000 in the year 2010. The plot did not have any drawings and therefore, there was no value determined by the government valuations department.
2. On 10 March 2023, he sold a low-cost house for net proceeds of K570,000 to an unconnected third party after deducting estate agents' fees of 5% of the sales value. The house had been valued at K580,000 according to the latest report obtained from the Government of the Republic of Zambia.
3. On 15 March 2023, he bought 5,000 ordinary shares of K1 each at a price of K5.00 each in DEG Ltd, a private Limited. The shares in DEG Ltd were valued at K8 per share on that date using share valuation methods approved by the Commissioner General.
4. On 30 May 2023, he sold a residential house to his son at a discounted price of K10,000. He bought the house ten years ago at a cost of K120,000. On 30 May 2023 the house had a market value of K350,000.
5. On 15 June 2023, he gave a plot of land valued at K80,000 to his nephew who had just graduated from University, to enable him construct his own house. The nephew did not give any consideration to Lubinda. He bought the plot five years ago at a cost of K30,000.

**Required:**

(a) Compute the Customs Value (Value for Duty Purposes) of the Toyota Alphard and the total import taxes paid by Namonje on the importation of the car. (7 marks)

(b) Describe any four (4) methods that are used to determine the value for the purposes of excise duty for goods manufactured in Zambia. (4 marks)

(c) Explain the Property Transfer Tax implications of each of the above transactions that Lubinda undertook in the tax year 2023. Your explanations MUST state the realised value and MUST include calculations of the amount of Property Transfer Tax arising where applicable. (9 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## CA2.4 TAXATION SUGGESTED SOLUTIONS

### SOLUTION ONE

(a) Provisional income tax
The due date for submission of provisional income tax return for the tax year 2023 is 31 March 2023.
Failure to submit the return on or before 31 March 2023 attracts a penalty of 2000 penalty units or K600 per month or part thereof the return remains unsubmitted.

(b) Provisional income tax paid for the tax year 2023

| | K |
|---|---|
| Provisional income | 2,800,000 |
| | |
| Provisional income tax: | |
| K2,800,000 x (30% - 2%) | 784,000 |
| | |
| Quarterly instalments: K784,000/4 | 196,000 |

| Instalments | Quarter ended | Should be paid not later than | Amount |
|---|---|---|---|
| | | | K |
| 1st | 31 March 2023 | 10th April 2023 | 196,000 |
| 2nd | 30th June 2023 | 10th July 2023 | 196,000 |
| 3rd | 30th September 2023 | 10th October 2023 | 196,000 |
| 4th | 31st December 2023 | 10th January 2024 | 196,000 |

(c) Capital allowances for the tax year 2023
(i) Implements, plant and machinery

| | K |
|---|---|
| Old office equipment | |
| Balancing charge | |
| (K50,000 – K100,000) – restricted to cost | (50,000) |
| | |
| Manufacturing equipment | |
| Wear & Tear: (K200,000 x 50%) | 100,000 |
| | |
| Mitsubishi truck | |
| Wear & tear: (K200,000 x 25%) | 50,000 |
| | |
| Toyota Prado car | |
| Wear & tear: (K400,000 x 20%) | 80,000 |
| | |
| Toyota Hilux (Double cab) van | |
| Wear & tear: (K600,000 x 20%) | 120,000 |
| | |
| New office equipment | |
| Wear & tear: (K150,000 x 25%) | 37,500 |

| | |
|---|---|
| Hino Light truck | |
| Wear & tear: (K560,000 x 25%) | 140,000 |
| | |
| Manufacturing Machine | |
| Wear & tear: (K1,100,000 x 50%) | 550,000 |
| Total capital allowances | 1,027,500 |

(ii) Buildings

| | K |
|---|---|
| Total cost | 2,900,000 |
| Less: | |
| Cost of land | (200,000) |
| Qualifying expenditure | 2,700,000 |

K2,700,000 x 10% = K270,000

| Capital allowances | K |
|---|---|
| Staff canteen | |
| Wear & tear: (K340,000 x 5%) | 17,000 |
| | |
| Factory | |
| Wear & tear: (K2,100,000 x 5%) | 105,000 |
| | |
| Administrative offices | |
| Wear & tear: (K260,000 x 5%) | 13,000 |
| Total capital allowances | 135,000 |

(d) Taxable business profits for the tax year 2023

| | K | K |
|---|---|---|
| Profit before tax | | 2,920,000 |
| Add: | | |
| Depreciation | 211,000 | |
| Loss on disposal | 44,000 | |
| Gifts to customers of diaries | | |
| (K130,000/K200) x K100 | 65,000 | |
| Entertaining customers & suppliers | 190,000 | |
| Penalty for late payment of income tax | 204,000 | |
| Fines for breach of safety regulations | 32,000 | |
| Increase in general allowance for receivables | 130,000 | |
| Free accommodation benefit: | | |
| Managing Director (K980,000 x 37.5%) | 367,500 | |
| Finance Director (K860,000 x 37.5%) | 322,500 | |
| Personal-to-holder car benefit: | | |
| Finance Director's car | 48,000 | |
| Managing Director's car | 48,000 | |
| | | 1,662,000 |
| | | 4,582,000 |
| Less: | | |
| Dividends | 38,500 | |
| Royalties | 63,750 | |
| Bank interest | 97,750 | |

| | | |
|---|---|---|
| Loans to former employees recovered | 67,000 | |
| Capital allowances: | | |
| Implements, plant & equipment | 1,027,500 | |
| Buildings | 135,000 | |
| | | (1,429,500) |
| Taxable business profit | | 3,152,500 |

(e) Company income tax payable for the tax year 2023

| | K |
|---|---|
| Taxable business profit | 3,152,500 |
| Add: | |
| Royalties (K63,750 x 100/85) | 75,000 |
| Bank interest (K97,750 x 100/85) | 115,000 |
| Total taxable income | 3,342,500 |
| | |
| Company income tax (K3,342,500 x 28%) | 935,900 |
| Less: | |
| WHT – Royalties (K75,000 x 15%) | 11,250 |
| WHT – Bank interest (K115,000 x 15%) | 17,250 |
| Provisional income tax paid | 784,000 |
| Income tax payable | 123,400 |

**SOLUTION TWO**

(a) (i) Factors indicating that Simon is an employee:

When considering Simon's contract with KZL Contructions, the essential point to consider is whether the contract constitutes a contract of service in which case he will be deemed to be an employee of KZL Limited, or a contract for services in which case he will be deemed to be self-employed. This notwithstanding, no single test will be conclusive. Hence a multiple test approach must be used to make this determination.

In the specific circumstances of the contract between Simon and KZL Ltd the following factors indicate that Simon is an employee in relation to the contract entered into on 1 June 2023:

(1) It appears that PMC has control over when and how much time Simon must spend for working for the company, that is, every day from a Monday to Friday, for five hours starting from 08;00.

The company also assigns him to the construction projects where he should perform his the duties.

This suggest that he is an employee of the company as an employee is controlled by the employer who will normally stipulate the working hours, the place at which duties are to be performed and other such conditions

(2) In the performance of his duties in relation to the contract, Simon uses the equipment and material provided by the KZL Constructions Ltd. The company also provides him with transport to the construction sites.

This suggests the existence of employment, as employees are normally provided with tools and equipment by their employer.

(3) Although Simon invoices KZL Constructions a fixed amount per month for working on the projects assigned to him by the company, it can be argued that the payment in fact, is in substance, a monthly salary.

Employees are paid in such a manner as they are paid an agreed salary on a monthly or weekly basis.

(4) There appear to be a standing arrangement that Simon must provide the services to KZL Ltd. This arrangement appears to be a long term arrangement as the agreement does not indicate how long this arrangement will last.

Employees normally work under such long-term arrangements. The self-employed are hired to perform a specific task such that once the task has been completed, the arrangement comes to an end

(5) The fact that Simon was recently employed by KZL Constructions may suggest that an agreement had been reached with the company to let Simon continue working for the company whilst also running his own business.

(ii) Factors that indicate that Simon is self- employed:

(1) Simon does not exclusively work for KZL Constructions as He spends part of his time attending to other clients in his new business.

(2) It further appears that Simon is able use other people or use his own employees to help him perform those duties and is not required to personally perform all the tasks assigned to him.

(3) Simon is paid an agreed contract price for work performed, even though this is paid monthly. Additionally, he is not entitled to any other benefits associated with employment such as leave pay, sick leave, pension rights or gratuity on expiry of the contract etc.

It also seems he can suffer loss from the transaction in his own personal capacity.

(4) Simon will be required to provide his own insurance cover. If he was an employee, then of KZL Construction, would have provided him with insurance cover for his actions.

It also appears that KZL will not be vicariously liable for the actions of Simon in relation to the agreement as he will be required to compensate the company for any loss it suffers as result of any defective work.

(5) Simon will also be required to cover the costs of any faulty work and KZL Limited will not pay any additional amounts in respect of such work.

(6) There is no indication that the KZL Constructions has the right to dismiss Simon after giving him an appropriate period of notice.

(b) COMPUTATION OF FINAL TAXABLE PROFIT

| | K | K |
|---|---|---|
| Taxable profit before capital allowances | | 145,000 |
| Income from KZL Constructions | | |
| (K15,000 x 7) | | 105,000 |
| | | 250,000 |

| | | |
|---|---|---|
| Less capital allowances on | | |
| Equipment (K40,000 x 25%) | 10,000 | |
| Motor van (K160,000 x 25%) x 75% | 30,000 | |
| | | (40,000) |
| | | 210,000 |

(c) SIMON'S

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2023

| | | |
|---|---|---|
| | | K |
| Final taxable profits | | 210,000 |
| Employment income | | |
| Salary (K150,000 x 4/12) | 50,000 | |
| Transport allowance (K50,000 x 5%) | 2,500 | |
| Housing allowance (K50,000 x 15%) | 7,500 | |
| Accommodation & meals allowance | 0 | |
| Travel expenses allowance | 0 | |
| Cash in lieu of leave | 6,250 | |
| Repatriation pay | 0 | |
| Gratuity | 0 | |
| Taxable emoluments | | 66,250 |
| Total income | | 276,250 |
| Income Tax | | |
| On first K57,600 x 0% | | 0 |
| On next K24,000 x 20% | | 4,800 |
| On next K25,200 x 30% | | 7,560 |
| On excess (K276,250 - K106,800) x 37.5% | | 63,544 |
| | | 75,904 |
| Less PAYE | | (18,750) |
| | | 57,154 |

**SOLUTION THREE**

(a) Qualities of a good tax system

(1) Taxation should bear as lightly as possible on production. Taxes should not be so high that they make production very expensive. Taxes that bear heavily on production lead to lower production.
(2) Taxes should be easy and cheap to collect and fall directly on the ultimate payer. Resources devoted to tax collection are wasted if the amounts collected are low.
(3) Taxes should be certain. If tax rules are complex, they can be subverted and evaded. If tax rules can only be understood by specialists, then only taxpayers who can afford to pay the specialists are likely to comply with the rules. Therefore, tax rules should be easy to understand.
(4) Taxes should bear equally so as to give no individual an advantage. This simply means that taxes should be levied on the basis of ability to pay. If taxes are not based on this principle, then persons in low income groups will find taxes to be more burdensome than those in high income groups.
(5) A tax must not hinder efficiency. Where it is not possible to achieve this, the tax should involve the least loss of efficiency.
(6) A tax should be compatible with the foreign tax systems. In the case of Zambia, the tax system should be compatible with the tax systems of the SADC and COMESA member states.

(1 mark for each valid point up to a maximum of 4 marks)

(b) The self-assessment system

(1) The Self-assessment is a system of collecting tax under which returns are issued to taxpayers to enable them to make their own assessments.

(2) Self-assessment applies to the following taxpayers:

- Individuals whose taxable income is above K57,600, where such income does not consist only of emoluments taxable under the PAYE system and also not covered by turnover tax (i.e., individuals running businesses where the annual turnover is above K800,000)

- Limited companies and other taxable bodies of persons which are expected to make profits where turnover tax is not applicable.

(3) At the start of the year, a taxpayer is required to make an estimate of the taxable income for the tax year and the compute an estimate of income tax on that taxable income. Each taxpayer includes the amount of taxable income for a given year in the return of provisional income tax which must be submitted to the Commissioner General not later than 31 March in the tax year to which it relates.

(4) This tax computed on the estimated income is at the beginning of the year is known as provisional income tax and must be paid in four quarterly instalments during the tax year.

The quarterly instalments are due at each quarter being 31 March, 30 June, 30 September and 31 December of each taxa year but must never be paid later than ten days after the end of each quarter.

(5) The actual amount of income tax will be known at the end of the tax year when all the necessary information is available, when the taxpayer is required to complete a self-assessment income tax return. This return must contain the amounts of income received from all the sources and a computation of income tax payable thereon.

(6) As advance payments of income tax will have been made under the provisional tax system, any balance of income tax payable will be the actual tax computed less all the taxes already paid.

(7) The self-assessment income tax return must be submitted to the Commissioner General by 21 June following the end of the tax year to which the return relates.

(c) (i) THE CURRENT YEAR BASIS OF ASSESSMENT (CYB)

The CYB means that the tax year in which the accounting period ends is the year in which any resulting profits are to be assessed.

This applies if accounts are prepared to a date between 1st April and 31st December (inclusive).

THE PRECEEDING YEAR BASIS OF ASSESSMENT (PYB)

The PYB means that the profits of the accounting period ending at any time between the dates stated are to be assessed using tax rates for the previous year.

This applies if accounts prepared to a date falling between 1st January and 31st March of the same year (inclusive).

(ii) The commencement rules are as follows:

(1) If the first accounting period is made up of exactly 12 months or less, the normal rules (that is, the CYB or the PYB) apply depending on when the period ends.

(2) If the first accounting period is made up of more than 12 months, then that period should be split into 2 notional accounting periods for tax purposes as follows:

- The first period should consist of less than 12 months.
- while the second period should consist of exactly 12 months ending on the first accounting date.

(3) The profits for the whole period should be allocated to the two notional accounting periods on a time basis and thereafter, the normal rules should be applied to determine the tax year in which the profits of the second accounting period should be assessed..

(iii) The cessation rules are which are applied are as follows:

(1) If the last accounting period is exactly 12 months long, then the normal rules will apply i.e. the CYB or PYB as applicable.

(2) If the last accounting period is less than 12 months, then the profits of that accounting period are assessed in the tax year following the one in which the profits of the second last accounting period were assessed.

(3) If the last accounting period is made up of more than 12 months, then that period should be split into two as follows:

- A 12-month period ending on the normal accounting date and

- A short accounting period ending on the date of cessation.

(4) The profits of the long accounting period should be allocated to the two resulting periods on a time basis:

- The tax year in which the profits of the 12-month period are to be assessed is determined by using the normal rules.

- The profits of the last accounting period (the one with less than 12 months) are to be assessed in the following tax year.

**SOLUTION FOUR**

(a) (i) A self-review threat

A self-review may arise when a tax practitioner is required to review tax work that they had previously done for the same client.

In such situations it is difficult for the practitioner to re-evalauate their own previous judgements objectively or identify any faults in their work for fear of receiving reprimanded, ruining their reputation or even losing their job.

(ii) Tax avoidance and Tax Evasion

**Tax avoidance**

Tax avoidance involves a tax payer minimizing their tax liabilities by taking advantage of the loopholes or weaknesses in tax law, thereby obtaining a tax advantage not originally intended by tax law

Tax evasion is not illegal or an offense, but it defeats the intention or purpose of tax law. Therefore, to discourage its practice, government usually enacts anti-avoidance tax legislation aimed at sealing the loop holes in tax legislation.

**Tax Evasion**

This refers to the use of illegal means to avoid or reduce tax liabilities. The aim of the tax payer practicing tax evasion is to defraud government of revenue.

(b) COMPUTATION OF VAT PAYABLE FOR THE MONTH

| | K | K |
|---|---|---|
| Output VAT | | |
| Standard rated sales | | |
| (K1,030,000 – K330,000 -K154,500) x 16% | | 87,280 |
| Zero rated sales (K330,000 x 0%) | | 0 |
| Exempt sales (No VAT chargeable) | | 0 |
| Sale of office equipment (K464,000 x 4/29) | | 64,000 |
| | | 151,820 |
| Input VAT | | |
| Standard rated purchases from registered traders | | |
| (K464,000 x 4/29) | 64,000 | |
| Exempt purchases (no VAT chargeable) | 0 | |
| Zero rated purchases (K31,000 x 0%) | 0 | |
| Purchases from unregistered traders (no VAT chargeable) | 0 | |
| Motor car expenses (K5,025 x 16%) x 85%(W) | 683 | |
| Telephone bills (irrecoverable) | 0 | |
| Entertaining customers | 0 | |
| Stationery (K1,250x 16%) x 85% (W) | 170 | |
| Utility bills (K800– K160) x 16% x 85%(W) | 87 | |
| Motor car (irrecoverable) | 0 | |
| Delivery van (K870,000 x 4/29) x 85%(W) | 102,000 | |
| Bad debt relief (K10,730 x 4/29) | 1,480 | |

| | |
|---|---|
| | <u>(168,420)</u> |
| VAT refundable | <u>(17,140)</u> |

The recoverable non attributable input VAT will be computed as follows

$$\text{Recoverable non attributable in put VAT} = \frac{\text{Taxable supplies}}{\text{Total Supplies}} \text{ x } 100\%$$

$$= \frac{\text{K875,500}}{1{,}030{,}000} \text{ x } 100\%$$

$$= \underline{\underline{85\%}}$$

**SOLUTION FIVE**

(a) COMPUTATION OF VDP

| | | |
|---|---|---|
| Purchase price | | $6,500 |
| | Insurance | $500 |
| Freight charges | | $2500 |
| Clearing & forwarding | | $200 |
| VDP in US$ | | $9,700 |
| Exchange rate | | x K19.50 |
| VDP in ZMW | | K189,150 |

COMPUTATION OF IMPORT TAXES

| | Value | Import Taxes |
|---|---|---|
| | K | K |
| Value for duty purposes | 189,150 | |
| Specific Customs Duty | 13,357 | 13,357 |
| | 202,507 | |
| Specific Excise Duty | 17,598 | 17,598 |
| VDP for import VAT | 220,105 | |
| Import VAT @16% | 35,217 | 35,217 |
| | 255,322 | |
| Surtax Charge | 2,000 | 2,000 |
| Total value | 257,322 | |
| Total import taxes | | 68,172 |

(b) The following methods that can be used to determine the VDP for excise purposes:

(1) The price at which a licensed manufacturer of excisable goods offers the goods for sale on the open market.
(2) The lowest price at which identical goods in the same quantity (or almost the same quantities) are sold within Zambia by another licensed manufacturer in the open market.
(3) The lowest price at which identical goods in different quantities are sold within Zambia by another licensed manufacturer in the open market.
(4) The lowest price at which similar goods in the same quantity (or almost the same quantities) are sold within Zambia by another licensed manufacturer in the open market.
(5) The lowest price at which similar goods in different quantities are sold within Zambia by another licensed manufacturer in the open market.
(6) The price which the goods would fetch, less profit and other costs beyond the manufacturing level.
(7) The computed value comprising the cost of production, profit and other costs to the manufacturing level.

(c) The Property Transfer Tax implications are as follows:

(1) The sale of the land for K300,000 is a transfer of property with a realized value of K300,000.

Property Transfer Tax paid:

5% x K300,000 = K15,000

(2) The sale of a low cost house by Lubinda is a transfer of property that has a realised value that is equal to the higher of the actual sales proceed K600,000 (K570,000 x 100/95) and the open market value of K580,000.

The actual sales price before deducting the agent's fees is the realised value because it is higher than the open market value.

Property Transfer Tax paid

5% x K600,000 = K30,000

(3) The purchase of shares in a private limited company does not result in a liability to Property Transfer Tax. This is because Lubinda is a buyer of the shares. Property Transfer tax is paid by the seller (The transferor) of property.

(4) The sale of a low-cost house by Lubinda to his son is a transfer of property to an immediate family and as such it will have a realised value that is equal to the actual consideration of K10,000.

Property Transfer Tax paid

5% x K10,000 = K500

(5) The gift of a plot of land by Lubinda to his nephew is a transfer of property that has a realised value of K80,000 as a nephew is not an immediate family member.

Property Transfer Tax paid

5% x K80,000 = K4000

## END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA2.5: FINANCIAL MANAGEMENT

FRIDAY 15 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

10. Formulae, Present Value, Annuity and normal distribution tables are attached at the end of the question paper.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A**

**This question is compulsory and must be attempted.**

**QUESTION ONE**

BX PLC, a manufacturing company is considering possible investment in three new products, details of which are given below. Research and development costs already incurred on the products are as follows:

| Product | K |
|---|---|
| A | 150,000 |
| B | 90,000 |
| C | 120,000 |

Each product will require immediate investment in plant and equipment for production. The cost of the plant and equipment A-C required for the production of each of the products A-C respectively is estimated as follows:

| Plant and Equipment | K |
|---|---|
| A | 2,300,000 |
| B | 1,800,000 |
| C | 2,600,000 |

In all three cases the plant and equipment has a useful life of five years at the end of which it will be valueless.

Unit sales per annum for each product are expected to be as follows:

| Sales | Units |
|---|---|
| A | 180,000 |
| B | 95,000 |
| C | 100,000 |

Selling price and variable cost per unit for each product are estimated as follows:

| Product | Selling price (K) | Material (K) | Labor (K) | Variable Overheads (K) |
|---|---|---|---|---|
| A | 25 | 6.5 | 7.8 | 5.0 |
| B | 50 | 17 | 17 | 10 |
| C | 28 | 7.5 | 6.0 | 4 |

The company charges depreciation on plant and equipment on a straight line basis over the useful life of the plant and equipment. Development costs of products are written off in the year that they are incurred. The company apportions general administration costs to products at the rate of 4% of selling price. None of the above products will lead to any actual increase in the company's administration costs.

The company is in the process of revising its dividend policy. This is in a bid to attract more investors into the company. The Board of Directors believes that an increase in the dividend will attract more capital needed for investment in the three proposed projects for the manufacture of products. They also hope that this may increase the share price of BX Plc.

Working capital requirements for each product will amount to 15% of the expected annual sales value. In each case, this investment will be made immediately and will be recovered in full when the projects end in five (5) years' time.

Funds available for investment are limited to K5.4 million. The company's cost of capital is 15%.

**Required:**

(a) Calculate the Net Present Value of producing each product and advise whether the proposed investments should be accepted or not. (12 marks)

(b) Calculate the Internal Rate of Return and advise whether the proposed investments should be undertaken or not. (6 marks)

(c) Calculate the profitability index for each product and advise the company which of the proposed products, if any, to produce assuming the projects are divisible. (8 marks)

(d) Discuss the limitations of the profitability index as a means of dealing with capital rationing. (7 marks)

(e) Discuss whether a change in dividend policy will affect the share price of BX Plc (7 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any THREE (3) questions.**

**<u>QUESTION TWO</u>**

Mwaiseni Ltd is a Zambian company that sells goods solely within Zambia. The recently-appointed Financial Manager of Mwaiseni Ltd has been investigating the financial management of the company and has gathered the following information:

**Inventory**

The current policy is to order 100,000 units when the inventory level falls to 35,000 units. Forecast demand to meet production requirements during the next year is 625,000 units. The cost of placing and processing an order is K250, while the cost of holding a unit in stores is K0.50 per unit per year. Both costs are expected to be constant during the next year. Orders are received two weeks after being placed with the supplier. You should assume a 50-week year and that demand is constant throughout the year.

**Accounts receivable**

Domestic customers are allowed 30 days' credit, but the financial statements of Mwaiseni Ltd show that the average accounts receivable period in the last financial year was 75 days. The Financial Manager also noted that bad debts as a percentage of sales, which are all on credit, increased in the last financial year from 5% to 8%.

**Accounts payable**

To improve its cash flows, Mwaiseni Ltd has recently sold some of its fleet of vehicles to a finance company and entered into an operating lease agreement to continue using them.

**Required:**

(a) Identify the objectives of working capital management and discuss the conflict that may arise between them. (3 marks)

(b) Calculate the cost of the current ordering policy and determine the saving that could be made by using the economic order quantity model. (8 marks)

(c) Discuss ways in which Mwaiseni Ltd could improve the management of domestic accounts receivable. (7 marks)

(d) Discuss two (2) attractions of an operating lease as a source of finance. (2 marks)

**[Total: 20 Marks]**

## QUESTION THREE

Frango Transport Limited is a Zambian company which owns a fleet of buses. The buses operate in all the major cities across the country. The business has faced fierce competition from both local and foreign public transport companies.

The business has its offices at the intercity bus terminus in the capital city where all reservations are made. The offices operate 24 hours a day and 7 days a week. The business was started 20 years ago and now employees 100 bus drivers and 20 full time office staff.

The shareholders of Franco mainly comprise the original founder of the business who would now like to realize their investment. In order to arrive at an estimate value of what management believes the business is worth, they have identified a quoted company HG Transport Plc, who has a similar business.

Summary financial data for Franco Transport Limited for the year 2023 is as follows:

| | **Frango Transport** |
|---|---|
| Share price (K) | - |
| Debt equity ratio | 1:5 |
| Net Asset Values (Km) | 9 |
| Dividend per share (K) | K0.30 |
| Earnings per share (K) | K0.45 |
| Expected rate of growth in earnings/ dividends | 5% |
| Issued shares '000 | 500 |
| Discount rate per annum for investment appraisal | 12% |

HG Transport Plc has in issue 1 million shares and net assets of K18 million. It has earnings per share of K0.85 and a dividend per share of K0.2. The market share price of HG Plc shares is K35 each.

**Notes:**

(1) The net assets of Frango Limited are the total assets less current liabilities. However, a recent valuation of property plant and equipment was K0.9 million above carrying value and debts of K0.5m were written off during the year.

(2) Growth rates are assumed to be constant per annum.

**Required:**

(a) Calculate the value of Frango Limited shares using the following methods:

(i) Asset based valuation method. (3 marks)
(ii) P/E ratio Valuation method. (4 marks)
(iii) Dividend valuation model method. (6 marks)

(b) Explain the purpose of undertaking business valuations. (4 marks)

(c) Discuss the usefulness of asset based valuation methods. (3 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

(a) One of the pre-requisites for the development of an economy is the existence of a dynamic financial market. Some financial markets, particularly in emerging economies are very small in terms of liquidity, with only a few market participants, while others in developed countries, like the New York Stock Exchange (NYSE) and the forex markets, trade trillions of dollars daily.

**Required:**

(i) Explain the meaning of a financial market. (1 mark)

(ii) Difference between the following financial markets:

(1) Debt market and Equity market (3 marks)

(2) Money market and Capital market (3 marks)

(3) Forex market and Interbank market (3 marks)

(b) Growth Point Ltd is a listed company selling computer software. Its profit before interest and tax (PBIT) has fallen from K5 million to K1 million in the last year and its current financial position is as follows:

| | **K'000** | **K'000** |
|---|---|---|
| **Non-current assets** | | |
| Property, plant and equipment | 3,000 | |
| Intangible assets | 8,500 | |
| | | 11,500 |
| **Current assets** | | |
| Inventory | 4,100 | |
| Trade receivables | 11,100 | |
| | | 15,200 |
| Total assets | | 26,700 |
| | | |
| **Current liabilities** | | |
| Trade payables | 5,200 | |
| Overdraft | 4,500 | |
| | | 9,700 |
| **Equity** | | |
| Ordinary shares | 10,000 | |
| Reserves | 7,000 | |
| | | 17,000 |
| | | 26,700 |

Growth Point Ltd has been advised by its bank that the current overdraft limit of K4.5 million will be reduced to K500,000 in two (2) months' time. The Finance Director of Growth Point Ltd has been unable to find another bank willing to offer alternative overdraft facilities and is planning to issue bonds on the stock market in order to finance the reduction of the overdraft. The bonds would be issued at their par value of K100 per bond and would pay interest of 9% per year, payable at the end of each year. The bonds would be redeemable at a 10% premium to their par value after 10 years. The Finance Director hopes to raise K4 million from the bond issue.

The ordinary shares of Growth Point Ltd have a par value of K1.00 per share and a current market value of K4.10 per share. The cost of equity of Growth Point Ltd is 12% per year and the current interest rate on the overdraft is 5% per year. Taxation is at an annual rate of 30%.

**Other financial information:**

| | |
|---|---|
| Average gearing of sector (debt/equity, market value basis): | 10% |
| Average interest coverage ratio of sector: | 8 times |

**Required:**

(i) Calculate the effect of using the bond issue to finance the reduction in the overdraft on:

(1) The interest coverage ratio; (2 marks)

(2) Gearing. (2 marks)

(ii) Discuss alternative sources of finance that could be considered by Growth Point Ltd, given its current financial position. (6 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

Markos Enterprises Ltd is considering raising money in order to finance its operations. However, the company is facing difficulties to raise money directly from its private individuals. Therefore, the company has turned to institutions and organisations that could assist it to raise the required finance from individuals who may want to invest in the company. Markos Enterprises is confident that investors will be interested in the company because it has made profits before tax of K19.42 million. The company pay corporate annual tax at the rate of 30%. The company's share capital is as follows:

| Share Capital | Amount (K) |
|---|---|
| Ordinary shares (Issued at nominal value of K0.5 per share) | 10,000,000 |
| 10% preference shares | 4,000,000 |
| Sub-Total | 14,000,000 |

The Directors of Markos Enterprises Ltd have a bonus scheme which provides that they earn a 25% bonus if the company achieves the earnings per share (EPS) of 30 ngwee.

**Required:**

(a) Explain the functions performed by financial intermediaries that may assist Markos enterprises to raise funds for the operations. (7 marks)

(b) Compute the EPS for Markos Enterprises Ltd and comment whether it is the appropriate measure to tie it to the bonus scheme for directors. (7 marks)

(c) Explain the reasons accounting profits may not be the best measure of a company's financial achievements. (6 marks)

**[Total: 20 Marks]**

**END OF PAPER**

# CA2.5 FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

## SOLUTION ONE

(a) Calculate annual contribution

| | K | K | K |
|---|---|---|---|
| | A | B | C |
| Unit Sales | 180 | 95 | 100 |
| | | | |
| | K | K | K |
| Selling price per unit | 25 | 50 | 28 |
| Material cost per unit | 6.5 | 17 | 7.5 |
| Laobur cost per unit | 7.8 | 17 | 6 |
| variable overheads per unit | 5 | 10 | 4 |
| **TOTAL** | | | |
| | K'000 | K'000 | K'000 |
| Sales per annum | 4,500 | 4,750 | 2,800 |
| materials | 1,170 | 1,615 | 750 |
| Labour | 1,404 | 1,615 | 600 |
| Variable overheads | 900 | 950 | 400 |
| Annual contribution | 1,026 | 570 | 1,050 |
| **TOTAL** | | | |
| | K'000 | K'000 | K'000 |
| Working capital requirement | | | |
| 15% of annual sales value | 675 | 712.5 | 420 |

It is assumed that working capital will be recovered at the end of year 5. The initial outlay will made in year 0.
The NPV of each product can now be calculated.

| | | A | | B | | C | |
|---|---|---|---|---|---|---|---|
| YEAR | Discount factor @ 15% | Cash flows K'000 | K'000 PVs | Cash flows K'000 | PVs K'000 | Cash flows K'000 | PVs K'000 |
| 0 | 1 | (2,975) | (2,975) | (2,512.5) | (2,512.5) | 3,020 | (3,020) |
| 1-5 | 3.352 | 1,026 | 3,439.15 | 570 | 1,910.64 | 1,050 | 3,519.60 |
| 5 | 0.497 | 675 | 335.48 | 712.50 | 354.11 | 420 | 208.74 |
| | | | 799.63 | | (247.75) | | 708.34 |
| **TOTAL** | | | | | | | |

On the basis of the NPV alone, investment A and C should be accepted as their NPV's are positive.

(b) Internal Rate Return (IRR)

**Project A**
NPV2 = K799.63

| Product A | | | |
|---|---|---|---|
| YEAR | Discount factor @ 30% | Cash flows K'000 | K'000 PVs |
| 0 | 1 | (2,975) | (2,975) |
| 1-5 | 2.436 | 1,026 | 2,499.34 |
| 5 | 0.269 | 675 | 181.58 |
| | | | (294.08) |
| **TOTAL** | | | |

IRR = 15% + (799.63)/799.63+294.08 x (30% -15%) = 25.97% or 26%

On financial grounds, the project should be accepted as it has an IRR which is above the cost of capital of 15%.

**Project B**
NPV1 = (K247.75)

| Project B | | | |
|---|---|---|---|
| YEAR | Discount factor @ 10% | Cash flows K'000 | K'000 PVs |
| 0 | 1 | (2,512.50) | (2,512.50) |
| 1-5 | 3.791 | 570 | 2,160.87 |
| 5 | 0.621 | 712.50 | 442.46 |
| | | | 90.83 |
| **TOTAL** | | | |

IRR = 10% + (90.83)/90.83+247.75 x (15% -10%) = 11.34% or 11%

On financial grounds, the project should not be accepted as it has an IRR which is below the cost of capital of 15%.

**Project C**
NPV2 = K708.24

| Product C | | | |
|---|---|---|---|
| YEAR | Discount factor @ 30% | Cash flows K'000 | K'000 PVs |
| 0 | 1 | (3,020) | (3,020) |
| 1-5 | 2.436 | 1,050 | 2,557.80 |
| 5 | 0.269 | 420 | 112.98 |
| | | | (349.22) |
| **TOTAL** | | | |

IRR = 15% + (708.24)/708.24+349.22 x (30% -15%) = 25.05% or 25%

On financial grounds, the project should be accepted as it has an IRR which is above the cost of capital of 15%.

(c) The profitability index

| PRODUCT | PV of inflows K'000 | Initial outlay K'000 | Ratio | Ranking |
|---|---|---|---|---|
| A | 3,774.63 | 2,975 | 1.27 | 1 |
| B | 2,264.75 | 2,512.5 | 0.90 | 3 |
| C | 3,728.34 | 3,020 | 1.23 | 2 |
| **TOTAL** | | | | |

Product A has the highest PI ranking and is therefore the first choice for investment.
On this basis the funds available should be invested as follows:

| Product | Initial outlay (K'000) | Total NPV K'000) | % taken | Cumulative outlay (K'000) | Actual NPV (K'000) |
|---|---|---|---|---|---|
| A | 2,975 | 799.63 | 100 | 2,975 | 799.63 |
| B | 3,020 | 708.34 | 80 | 5,400 | 568.78 |
| C | 2,512.5 | (247.73) | 0 | 5,400 | 0 |
| Total NPV | | | | | 1,368.41 |
| **marks** | | | | | |

(d) Limitations of Profitability Index

The profitability index approach can be applied only if the projects under consideration fulfill certain criteria as follows:

(i) There is only one constraint on investment, in this case capital. The PI ensures that maximum return per unit of scarce is obtained.
(ii) Each investment can be accepted or rejected in its entirety or alternatively accepted on a partial basis.
(iii) The NPV generated by a given project is directly proportional to the percentage of the investment undertaken.
(iv) Each investment can only be made once and not repeated.
(v) The company's aim is to maximize overall NPV.

If additional funds are available but at a higher cost, then the sample PI approach cannot be used since it is not possible to calculate unambiguous individual NPVs.

If certain of the projects that may be undertaken are mutually exclusive then sub problems must be defined and calculations made for different combinations of projects. This can become a very lengthy process. These assumptions place limitations on the use of the ratio approach. It is not appropriate to multi constraint situations when linear programming techniques must be used. Each project must be infinitely divisible and the company must accept that it may need to undertake a small proportion of a given project. This is frequently not possible in practice. It is also very unlikely that there is a simple linear relationship between the NPV and the proportion of the project undertaken. It is much more likely that there will be discontinuities in returns.

Possibly a more serious constraint is the assumption that the company's only concern is to maximize NPV. It is possible that there may be long term strategic reasons which mean that an investment with a lower NPV should be undertaken instead of one with a higher NPV, and the ratio approach takes no account of the relative degrees of risk associated with making the different investments.

(e) Change in dividend policy

**Dividends as a Signal to Investors**

The ultimate objective in any financial management decision is to maximize shareholder wealth. If shareholder wealth increase, it can be expected that the share price will rise. Shareholder wealth and therefore the share price should largely be determined by the cash flows arising from the investment decisions taken by management.

Shareholders will look at a number of factors when analyzing investments and not just dividends. They will be particularly interested in the business and financial risk of the company and will not be necessarily impressed with a large increase in dividends.

The dividend declared can be interpreted as a signal from directors to shareholders about the strength of underlying project cash flows. Investors usually expect a consistent dividend policy from the company, with stable dividends each year or even better steady dividend growth.

**Modigiliani and Mille**r

Modigiliani and Miller (MM) proposed that in a tax free world shareholders are indifferent between dividends and capital gains, and the value of a company is determined solely by the earning power of its assets and investments.

MM argued that if a company with investment opportunities decides to pay a dividend, so that retained earnings are insufficient to finance all its investments, the shortfall in funds will be made up by obtaining additional funds from outside sources. If a company pursues a consistent dividend policy , each corporation would tend to attract to itself a clientele consisting of those preferring its particular payout ratio, but one clientele would be entirely as good as another in terms of the valuation it would imply for the firm.

**Conclusion**

Capital markets are only semi-strong efficient not perfect, so the signaling power of a dividend and the existence of clienteles can be important. This implies that a change in dividend policy could affect BX Plc share price.

**SOLUTION TWO**

4(a) The objectives of working capital management are profitability and liquidity. The objective of profitability supports the primary financial management objective, which is shareholder wealth maximisation. The objective of liquidity ensures that companies are able to meet their liabilities as they fall due, and thus remain in business. However, funds held in the form of cash do not earn a return, while near-liquid assets such as short-term investments earn only a small return.

Meeting the objective of liquidity will therefore conflict with the objective of profitability, which is met by investing over the longer term in order to achieve higher returns. Good working capital management therefore needs to achieve a balance between the objectives of profitability and liquidity if shareholder wealth is to be maximised.

(b) Cost of current ordering policy of Mwaiseni Ltd
Ordering cost = K250 x (625,000/100,000) = K1, 563 per year
Weekly demand = 625,000/50 = 12,500 units per week

Consumption during 2 weeks lead time = 12,500 x 2 = 25,000 units
Buffer stock = re-order level less usage during lead time = 35,000 – 25,000 = 10,000 units
Average stock held during the year = 10,000 + (100,000/2) = 60,000 units
Holding cost = 60,000 x K0.50 = K30, 000 per year
Total cost = $(Q*C_h)/2+ (C_O*D)/Q$ = holding cost+ ordering cost = K1, 563 + K30,000 = K31,563 per year

EOQ - based ordering policy
Economic order quantity = $((2CoD)/C_h)^{1/2}$ =$((2 \times 250 \times 625{,}000)/0.5)^{1/2}$ = 25, 000 units
Number of orders per year = 625,000/25,000 = 25 per year
Ordering cost = K250 x 25 = K6, 250 per year

Holding cost (ignoring buffer stock)
=K0.50 x (25,000/2) = K0.50 x 12,500 = K6, 250 per year
Holding cost (including buffer stock) = K0.50 x (10,000 + 12,500) = K11, 250 per year
Total cost of EOQ-based ordering policy = K6, 250 + K11, 250 =K17, 500 per year
Saving for Mwaiseni Ltd by using EOQ - based ordering policy = K31, 563 – K17, 500 = K14, 063 per year

(c) The information gathered by the Financial Manager of Mwaiseni Ltd indicates that two areas of concern in the management of domestic accounts receivable are the increasing level of bad debts as a percentage of credit sales and the excessive credit period being taken by credit customers.

Reducing bad debts
The incidence of bad debts, which has increased from 5% to 8% of credit sales in the last year, can be reduced by assessing the creditworthiness of new customers before offering them credit and Mwaiseni Ltd needs to introduce a policy detailing how this should be done, or review its existing policy, if it has one, since it is clearly not working very well. In order to do this, information about the solvency, character and credit history of new clients is needed. This information can come from a variety of sources, such as bank references, trade references and credit reports from the credit reference agencies. Whether credit is offered to the new customer and the terms of the credit offered can then be based on an explicit and informed assessment of default risk.

Reduction of average accounts receivable period
Customers have taken an average of 75 days credit over the last year rather than the 30 days offered by Mwaiseni Ltd, i.e. more than twice the agreed credit period. As a result, the company will be incurring a substantial opportunity cost, either from the additional interest cost on the short-term financing of accounts receivable or from the incremental profit lost by not investing the additional finance tied up by the longer average accounts receivable period. Mwaiseni Ltd needs to find ways to encourage accounts receivable to be settled closer to the agreed date.

Assuming that the credit period offered by Mwaiseni Ltd is in line with that of its competitors, the company should determine whether they too are suffering from similar difficulties with late payers. If they are not, the company should determine in what way its own terms differ from those of its competitors and consider whether offering the same trade terms would have an impact on its accounts receivable. For example, its competitors may offer a discount for early settlement while MwaisenI Ltd does not and introducing a discount may achieve the desired reduction in the average accounts receivable period. If its competitors are experiencing a similar accounts receivable problem, The company could take the initiative by introducing more favourable early settlement terms and perhaps generate increased business as well as reducing the average accounts receivable period.

Mwaiseni should also investigate the efficiency with which accounts receivable are managed. Are statements sent regularly to customers? Is an aged accounts receivable analysis produced at the end of each month? Are outstanding accounts receivable contacted regularly to encourage payment? Is credit denied to any overdue accounts seeking further business? Is interest charged on overdue accounts? These are all matters that could be included by Mwaiseni Ltd in a revised policy on accounts receivable management.

4(d)
Operating leasing is a popular source of finance for companies of all sizes. Operating leases are seen as protection against obsolescence, since they can be cancelled at short notice without a financial penalty. The lessor will replace the leased asset with a more up-to-date model in exchange for continuing leasing business. This flexibility is seen as valuable in the current era of rapid technological change, and can also extend to contract terms and servicing cover.

Operating leasing is often compared to borrowing as a source of finance and offers several attractive features in this area. There is no need to arrange a loan in order to acquire an asset and so the commitment to interest payments can be avoided, existing assets need not be tied up as security and negative effects on return on capital employed can be avoided. Since legal title does not pass from lessor to lessee, the leased asset can be recovered by the lessor in the event of default on lease rentals. Operating leasing can therefore be attractive to small companies or to companies who may find it difficult to raise debt. Operating leasing can also be cheaper than borrowing to buy. There are several reasons why the lessor may be able to acquire the leased asset more cheaply than the lessee, for example by taking advantage of bulk buying, or by having access to lower cost finance by virtue of being a much larger company. The lessor may also be able use tax benefits more effectively than the lessee. A portion of these benefits can be made Mwaiseni as a lessee in the form of lower lease rentals, making operating leasing a more attractive proposition than borrowing. Operating leases also have the attraction of being off-balance sheet financing, in that the finance used to acquire use of the leased asset does not appear in the balance sheet.

## SOLUTION THREE

(a)

### NET ASSETS VALUATION METHOD

| | KM |
|---|---|
| Net assets at book value | 9 |
| Add: increased valuation | 0.9 |
| Less bad debts written off | (0.5) |
| | 9.4 |

Value per share = 9.4m /0.5m shares = k18.80 per share

**(1 mark for each entry * 3 =3 marks)**

**P/E ratio method**

Price earnings ratio of similar company = Share price / EPS K35/0.85 = 41.1 9

All things being equal the PE ratio of an unquoted company should be taken to be between and 2/3 of a similar quoted company. This should be approx. 2/3 x 41.1 = 27.4.

This will value Franco Transport Limited as k0.45 x 27.4 = K12.33 per share x 500,000 shares = K6.165m.

**Dividend Valuation model**

Share price = Next years dividend/ ( cost of equity – growth rate)

For HG Transport cost of equity:

Cost of equity = [Next years' dividend / (market price)] + growth rate

= [(K0.2 X K1.082)/K35] + 0.082 = 5.6%

Using say 6% approx. as cost of equity for Frango Transport:

Share price = K0.3 X 1.05/[0.06 -0.05] = 0.315 / 0.01

K31.5/ Share

The whole of the share capital is valued T K31.5 per share x 500,000 = K15.75m .

(b)

i) The company wishes to go public and must fix an issue price for its shares.
ii) There is a scheme for a merger.
iii) Shares are sold.
iv) Shares need to be valued for purpose of property transfer tax.
v) Shares are pledged as collateral for a loan.

(c)

**Use of net assets as a basis for valuation**

i) As a floor value for a business that is up for sale- shareholders will be reluctant to sale for less than net asset value. However if the sale is essential for cashflow purposes.

ii) As a measure of the security in a share value. The asset backing for shares provides a measure of the possible loss if the company fails to make the expected earnings or dividend payments.

iii) As a measure of comparison in a scheme of merger. A merger is essentially a business combination of two or more companies of which non obtains control over another.

For example if company A which has a low asset backing is planning a merger with company B, which has a high asset backing, the shareholders of B might consider that their shares value ought to reflect this . It might therefore be agreed that a something should be to the value of company B shares to allow for this difference in asset backing.

**SOLUTION FOUR**

(a) (i)

A **financial market** is a broad term describing any marketplace where buyers and sellers participate in the trade of assets such as equities, bonds, currencies and derivatives. Financial markets are typically defined by having transparent pricing, basic regulations on trading, costs and fees, and market forces determining the prices of securities that trade.

**Equity markets** allow investors to buy and sell shares in publicly traded companies. They are one of the most vital areas of a market economy as they provide companies with access to capital and investors with a slice of ownership in the company and the potential of gains based on the company's future performance.

**Debt market** is where an investor loans money to an entity (corporate or governmental), which borrows the funds for a defined period of time at a fixed interest rate. Bonds which are mostly used in debt markets are used by companies, municipalities, states and U.S. and foreign governments to finance a variety of projects and activities. Bonds can be bought and sold by investors on credit markets around the world. This market is alternatively referred to as the credit or fixed-income market. It is much larger in nominal terms that the world's stock markets.

(a) (ii)

The **money market** is a segment of the financial market in which financial instruments with high liquidity and very short maturities are traded. The money market is used by participants as a means for borrowing and lending in the short term, from several days to just under a year. Money market securities consist of negotiable certificates of deposit (CDs), banker's acceptances, commercial paper, municipal notes, federal funds and repurchase agreements (repos). Money market investments are also called cash investments because of their short maturities.

A **capital market** is one in which individuals and institutions trade financial securities. Organizations and institutions in the public and private sectors also often sell securities on the capital markets in order to raise funds. Any government or corporation requires capital (funds) to finance its operations and to engage in its own long-term investments. To do this, a company raises money through the sale of securities - stocks and bonds in the company's name. These are bought and sold in the capital markets.

(a) (iii)

The **interbank market** is the financial system and trading of currencies among banks and financial institutions, excluding retail investors and smaller trading parties. While some interbank trading is performed by banks on behalf of large customers, most interbank trading takes place from the banks' own accounts.

The **forex market** is where currencies are traded. The forex market is the largest, most liquid market in the world with an average traded value that exceeds K1.9 trillion per day and includes all of the currencies in the world. The forex is the largest market in the world in terms of the total cash value traded, and any person, firm or country may participate in this market.

(b) **(1)(i)** *Interest coverage ratio*

| Item | Computation | Value |
|---|---|---|
| Current interest | K4.5m x 5% | 225,000 per year |
| Current interest coverage ratio | 1m/0.225 | 4.4 times |
| Interest from bond issue | K4m x 9% | K360, 000 per year |
| Interest on remaining overdraft | K0.5m x 5% | K25, 000 per year |
| Total interest | 360,000 + 25,000 | K385, 000 per year |
| Revised interest coverage ratio | 1m/0.385 | 2.6 times |

The current interest coverage ratio of 4.4 times is just over half of the sector average value of 8 times, although before the fall in profit it was 22 times. As a result of the bond issue, the interest coverage ratio would fall to 2.6 times, which is a dangerously low level of cover.

(b)(1)(ii) Gearing

| **Item** | **Computation** | **Value** |
|---|---|---|
| Current interest Market capitalisation of Growth Point Ltd | 10m shares x K4.10 | K41 million |
| Current gearing using market values ( excluding overdraft) | | zero |
| Revised gearing using market values (excluding overdraft) | 100 x (4,000/41,000) | 9.8% |
| Current gearing using market values, including overdraft | = 100 x (4,500/41,000) | 11.0% |
| Revised gearing using market values, including overdraft | 100 x (4,500/41,000) | 11.0% |
| | | |

**Note: full credit could have been obtained whether or not the overdraft had been included in the gearing calculations.**

Whether the bond issue has an effect on gearing depends on whether the gearing calculation includes the overdraft. If the overdraft is excluded, gearing measured by the debt/equity ratio on a market value basis increases from zero to 9.8%. If the overdraft is included, there is no change in gearing, since the bond issue replaces an equal amount of the overdraft. Given the sector average debt/equity of 10%, there does not appear to be any concerns about gearing as a result of the bond issue.

(b)(2) **Alternative sources of finance**

Given the recent fall in profit before interest and tax from K5 million to K1 million, any potential investor would initially seek reassurances that GROWTH POINT Ltd would continue to be a viable business. The reason for the decline in profitability needs to be determined and the longer-term sustainability of the company needs to be confirmed before further financing is considered.

If longer-term viability is assured, the need for further finance could be reduced by taking measures to reduce costs and increase income, for example through improved working capital management.

If the company pays dividends, consideration could be given to reducing or passing the dividend in order to increase the flow of retained earnings in the company.

Given the problems with interest coverage and security, and the lack of availability of further overdraft finance, equity finance is the first alternative choice that could be considered. While no information has been provided on recent share price changes or on the dividend policy of GROWTH POINT Ltd, existing shareholders could be consulted about a rights issue.

Using a discount to the current market price of 20% gives a rights issue price of K3.28. A 1 for 8 rights issue at this price would raise K4.1 million, increasing the interest coverage ratio to 50 (1m/0.02m) if the proceeds were used to reduce the overdraft to K400, 000.

If shares were offered to new shareholders, the dilution of existing ownership and control would be small, given that K4 million is only 9% of K45 million (41 + 4). New shareholders would be unlikely to invest, however, if no dividend were on offer.

Sale and leaseback would not raise sufficient finance, given that tangible non-current assets are only K3 million, but this avenue could be explored in conjunction with another source of finance.

Other finance sources that could be considered include convertible bonds or bonds with warrants attached. Improved working capital management could also decrease the amount of finance required.

Considering the significant decrease in the interest coverage ratio as a result of the bond issue and the lack of tangible non-current assets to offer as security, it appears that the proposed bond issue cannot be recommended and would probably be unsuccessful. GROWTH POINT Ltd should therefore consider alternative sources of finance in order to reduce the overdraft.

**SOLUTION FIVE**

(a) One example of a financial intermediary Markos enterprises Ltd may approach is a bank. As you might be aware, banks make loans to companies using the money that has been deposited with them by individuals.

Functions of financial intermediary

(i) Aggregation:

Individuals are each depositing relatively small amounts with the bank, but the bank is able to consolidate and lend larger amounts to companies such as Markos enterprises.

(ii) Maturity Transformation:

Most individuals are depositing money for relatively short periods, but the bank is able to transform this into longer term loans to companies in the knowledge that as some individuals withdraw their deposits, others will take their place. In this way Markos enterprises will able to obtain finance for a longer period.

(iii) Diversification of risk:

Many individuals may be scared of lending money directly to one particular company such as Markos enterprises because of the risk of that company going bankrupt. However, a bank will be lending money to many companies and will therefore be reducing the risk to themselves and therefore to the individuals whose money they are using.

(b) Calculation of EPS

| Description | Amount (K'million) |
|---|---|
| Profits before tax | 19.42 |
| Less tax@30% | (5.826) |
| Profits after tax | 13.594 |
| Less preference dividend | 4.00 |
| Earnings attributable to ordinary shareholders | 9.594 |
| Number of ordinary shares (K10m/0.5) | 20 |
| EPS | K0.4797 per share |

The EPS is a figure based on past data, and it is easily manipulated by changes in accounting policies and by mergers or acquisitions. The use of the measure in calculating management bonuses makes it particularly liable to manipulation.

The attention given to EPS as a performance measure by financial analysts is arguably disproportionate to its true worth. Investors should thus be more concerned with future earnings, but of course estimates of these are more difficult to reach than the readily available figure.

(c)

**Manipulation**

Accounting profits can be manipulated to some extent by choices of accounting policies. For example, the depreciation amount will depend on the basis of calculation of deprecation and development costs can be capitalised instead of being written off to the income statement.

**Risk**
Profit does not take account of risk. Shareholders will be very interested in the level of risk, and maximising profits may be achieved by increasing risk to unacceptable levels.

**Volume of investment**
Profits on their own take no account of the volume of investment that it has taken to earn the profit. Profits must be related to the volume of investment to have any real meaning.

**Short-term performance**
Profits are reported every year (with half-year interim results for quoted companies). They are measures of short-term historic performance, whereas a company's performance should ideally be judged over a longer term and future prospects considered as well as past profits.

## END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION ADVANCED DIPLOMA IN ACCOUNTANCY

CA 2.6: STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 13 SEPTEMBER 2023

TOTAL MARKS: 100; TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:

   Section A: One (1) compulsory scenario question.

   Section B: Four (4) Optional scenario Questions. Attempt any three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. **Do NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A**

**This question is compulsory and must be attempted.**

**<u>QUESTION ONE - (COMPULSORY)</u>**

## Abakankala Furniture (Z) Limited

Abakankala Furniture (Z) Limited is a garden furniture manufacturing company on the Copperbelt, which employs about 20 people. It buys its timber in uncut form from local sawmillers. It cures it in the kiln and stores the timber in a covered area to dry out and season before use. On average this process takes up to one year; and the wood yard takes up so much space that the production area is restricted.

The product range offered by the company is limited to the manufacture of garden seats and tables because the owner-manager, Mr. Vinako Ndalama, has expanded the business by concentrating on the sale of these items and has given little thought to alternative products. Mr. Ndalama is more of a craftsman than a manager, and the manufacturing area is anything but streamlined. Employees work on individual units at their own pace, using little more than a circular saw and a mallet and wooden pegs to assemble the finished product. The quality of the finished items is generally good but relatively expensive because of the production methods employed.

Marketing has, to date, been felt to be unnecessary because the premises stand on a busy road intersection and the company's products are on permanent display to passing traffic. Also, satisfied customers have passed on their recommendations to new customers. But things have changed. New competitors have entered the market place and Mr. Ndalama has found that orders are falling off. Competitors offer a much wider range of garden furniture and Mr. Ndalama is aware that he may need to increase his product range, in order to compete. As the owner-manager, Mr. Ndalama is always very busy and, despite working long hours, finds that there is never enough time in the day to attend to everything. His foreman - Dalitso Banda, is a worthy individual but, like Mr. Ndalama, is a craftsman and not very good at managing human resources. The overall effect is that the staff is left very much to their own devices. As they are paid by the hour rather than by the piece, they have little incentive to drive themselves very hard.

**Required:**

(a) Explain what is meant by the terms' value chain 'and' value chain analyses? (4 marks)

(b) Draw the diagram to give a brief explanation of each part of Porters Value Chain. (16 marks)

(c) Analyse the activities in the value chain to identify four (4) key problems facing Abakankala Furniture. (12 marks)

(d) Based on your analysis, prepare a set of four (4) recommendations for Mr. Ndalama to assist in a more efficient and effective operation of his business. (8 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any THREE (3) QUESTIONS.**

**<u>QUESTION TWO</u>**

Jane Chirwa is an IT Manager at Chilonga Marketing Services Limited. She has been requested by her General Manager to help out with a client organisation which is having strong operational challenges. In her analysis of the client organisation, she has found out that IT has affected the structure of the industry in which the client was operating in, through the effects on the five competitive as Michael Porter postulated.

**Required:**

(a) Demonstrate through the diagram, the five (5) competitive forces model. (9 marks)

(b) State and explain the three (3) generic strategies for competitive advantage. (3 marks)

(c) Describe four (4) ways in which marketing services can be made more effective by customer databases enabling market segmentation. (8 marks)

**[Total: 20 Marks]**

**<u>QUESTION THREE</u>**

(a) Corporate Governance is the combination of rules, processes and laws by which businesses are operated, regulated and controlled. Good corporate governance practice is supposed to minimize agency costs, improve meritocracy in boardrooms, reduce risk of fraud and safeguard the wealth of stakeholders. Corporate governance is giving overall direction to the enterprise with overseeing and controlling the executive actions of management and with satisfying legitimate expectations for accountability and regulation by interest beyond the corporate boundaries. If management is about running business, then corporate governance is about seeing that it is run properly.

**Required:**

(i) Discuss three (3) ways of resolving the Agency Problem. (6 marks)

(ii) What does the concept of skepticism and independence mean in Corporate Governance? (4 marks)

(b) Explain any five (5) benefits of Enterprise Risk Management. (10 marks)

**[Total: 20 Marks]**

**QUESTION FOUR**

(a) With the help of a diagram, apply the Strategy Clock to the product or firm of your choice. (10 marks)

(b) Discuss five (5) barriers to entry in a competitive industry of your choice. (10 marks)

**[Total: 20 Marks]**

**QUESTION FIVE**

Three former colleagues at a Zambian Public University, Mr. Musonda, Ms. Tonga and Mr. Ndole formed a company called Mutondo Holdings limited. This company performed very well for a number of years. In the quest to increase its equity base, it invites two (2) other investors. This group of five equity holders hired management and themselves became members of the Board of Directors to ensure Corporate Governance was in place.

**Required:**

(a) Provide any five (5) comments on the definition of corporate governance. (10 marks)

(b) As the Board has decided to employ a centralized form of organization for the next 10 years, describe any five (5) advantages of centralization. (10 marks)

**[Total: 20 Marks]**

**END OF PAPER**

# CA 2.6 STRATEGIC BUSINESS ANALYSIS SUGGESTED SOLUTIONS

## SOLUTION ONE

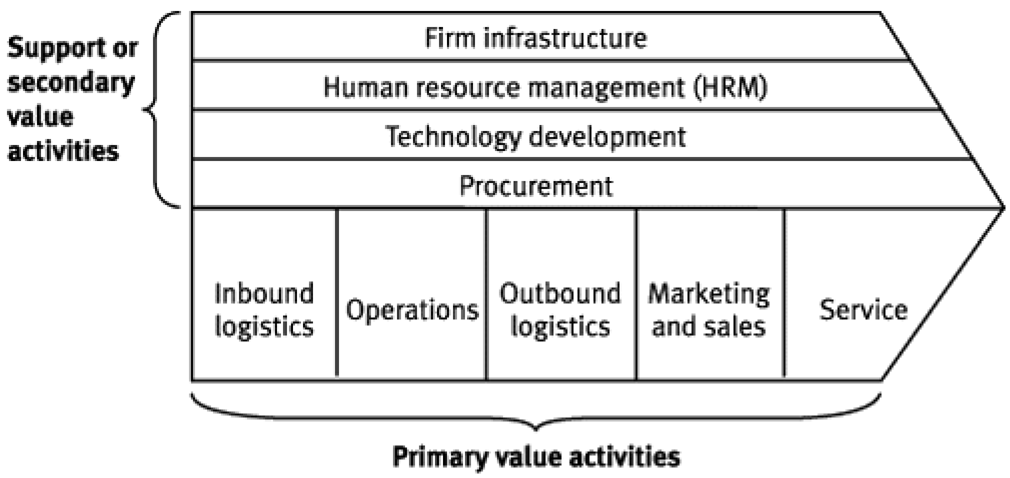
(a) 'Value chain' describes the full range of activities which are required to bring a product or service from conception, through the intermediary of production, delivery to final consumers, and final disposal after use. It is a way of looking at a business as a chain of activities that transform inputs into outputs that customers value. Customer value derives from three basic sources:

1. activities that differentiate the product
2. activities that lower its cost
3. activities that meet the customer's need quickly.

The value chain includes a profit margin since a markup above the cost of providing a firm's value-adding activities is normally part of the price paid by the buyer by creating value that exceeds cost so as to generate a return for the effort.

'Value chain analysis' views the organisation as a sequential process of value-creating activities, and attempts to understand how a business creates customer value by examining the contributions of different activities within the business to that value. Value activities are the physically and technologically distinct activities that an organisation performs. Value analysis recognizes that an organisation is much more than a random collection of machinery, money and people. These resources are of no value unless they are organised into structures, routines and systems, which ensure that the products or services that are valued by the final consumer are the ones that are produced.

(b) Porter describes two different categories of activities.



The primary activities, in the lower half of the value chain are grouped into five main areas:

1. Inbound logistics are the activities concerned with receiving, storing and handling raw material inputs.
2. Operations are concerned with the transformation of the raw material inputs into finished goods or services. The activities include assembly, testing, packing and equipment maintenance.
3. Outbound logistics are concerned with the storing, distributing and delivering the finished goods to the customers.
4. Marketing and sales are responsible for communication with the customers e.g. advertising, pricing and promotion.
5. Service covers all of the activities that occur after the point of sale e.g. installation, repair and maintenance.

Alongside all of these primary activities are the secondary, or support, activities of procurement, technology development, human resource management and firm infrastructure. Each of these cuts across all of the primary activities, as in the case of procurement where at each stage items are acquired to aid the primary functions.

(c)The key problem areas are as follows:

1. Inbound logistics at Abakankala Furniture has problems with the procurement of the raw materials, labour and machinery. The company is buying its raw materials one year in advance of using it. This must be tying up capital that could be used to purchase new machinery and tools. Storing the timber entails large amounts of money being tied up in stocks, which are prone to damage, restrict the production area and is very slow moving. The workmen are being paid by the hour rather than by the piece and this means that they have little incentive to work harder.
2. Operations are concerned with the transformation of the raw material inputs into finished goods or services. At Abakankala Furniture, employees work at their own pace on the assembly of the garden seats and tables, using very basic tools. The production methods used make the finished product relatively expensive. The linkages between the support activities are also causing some problems. Both the owner and the foreman have no human resources management skills. Technological development is non-existent and the company needs re-structuring.
3. Outbound logistics are concerned with storing, distributing and delivering the finished goods to the customers. Woodsy does not seem to have a system for distributing and delivering its goods.

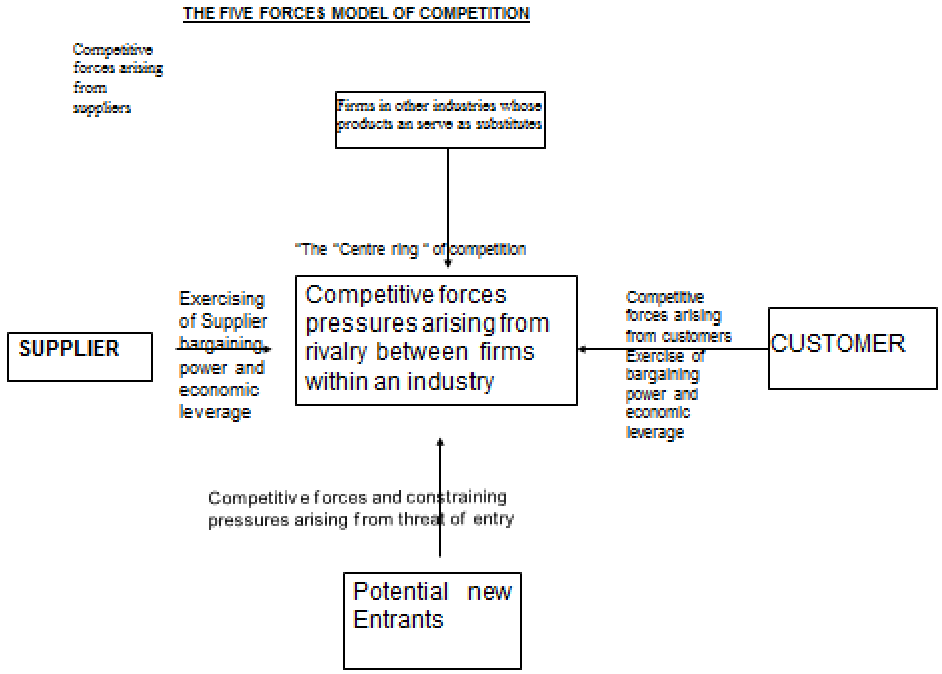
4. Marketing and sales are responsible for communication with the customers e.g. advertising, pricing and promotion. This seems to be non-existent at Abakankala Furniture as, in the past, satisfied customers have passed on their recommendations to new customers. The company relies on its position on a busy road intersection to displays its products, for customers to carry away themselves.

(d) For Mr Ndalama, the main task is to decide how individual activities might be changed to reduce costs of operation or to improve the value of the organisation's offerings. Therefore, the recommendations would include the following:

1. The business needs managing full-time. A new manager, or assistant manager, could encourage Mr Ndalama to streamline the manufacturing process, introduce new technologies and new production and administrative systems. He or she could also negotiate new payment methods to give the workforce an incentive to work harder.
2. To increase the production area the alternative strategies that the company could explore include storing the timber elsewhere, or purchasing it after it has dried out and seasoned.
3. Holding high levels of finished goods might give a faster customer response time but will probably add to the total cost of operations.
4. The purchase of more expensive power tools and equipment may lead to cost savings and quality improvements in the manufacturing process.
5. The company needs a marketing and sales department to research the market, inform the customers about the product, persuade them to buy it and enable them to do so. The product range may need to be extended and alternative outlets for the products sought.

**SOLUTION TWO**

(a) **Diagrammatic representation of five competitive forces**




(b) Generic Strategies for achieving competitive advantage

(i) Cost leadership

(ii) Differentiation

(iii) Focus – pursuing through narrow segment

(c) The ways in which marketing services can be made more effective by customer database include:

(i) Buying and analysing a mailing list is a more precise method of targeting particular groups of customers than television advertising.

(ii) A variety of market research companies use information systems to monitor consumer' buying habits.

(iii) Supermarkets can use automated EPOS systems (electronic point of sale tills) to have a precise hour-by-hour idea of how products are selling to enable speedy ordering and replenishment.

(iv) Customer relationship management (CRM) systems can encourage closer relationship.

**SOLUTION THREE**

(a) Corporate governance

i. Discuss three (3) ways of resolving the Agency Problem.

- Profit-related economic value-added pay- this pay or bonuses related to the size of profits or economic value added
- Rewarding managers with shares- Management are invited to subscribe for shares in the company at an attractive offer price through buy-out or Buy-ins
- Executive Share Option Plans (ESOPs)- this is giving managers a number of share options, each of which the holder has the right after a certain date to subscribe for shares in the company at a given fixed price.

ii. What do the concept of skepticism and Independence mean in Corporate Governance?

- Skepticism- Non-Executive Directors must have open and inquiring minds. They must adopt an atmosphere of skepticism to challenge the evidence and decisions of Management in their role of scrutiny.
- Independence- this the avoidance of being unduly influenced by vested interests and free from any constraints that would prevent a correct course of action from being taken. It is the ability to stand apart from inappropriate influence nd be free from managerial capture, to be able to make the correct and uncontaminated decision on the given issue.

(b) Five benefits of Enterprise Risk Management

i. Alignment of risk appetite and strategy-

ii. Links growth and Return

iii. Choose best risk response

iv. Minimizes surprises and losses

v. Identify and mitigate risk across the organisation

vi. Provides response to multiple risks

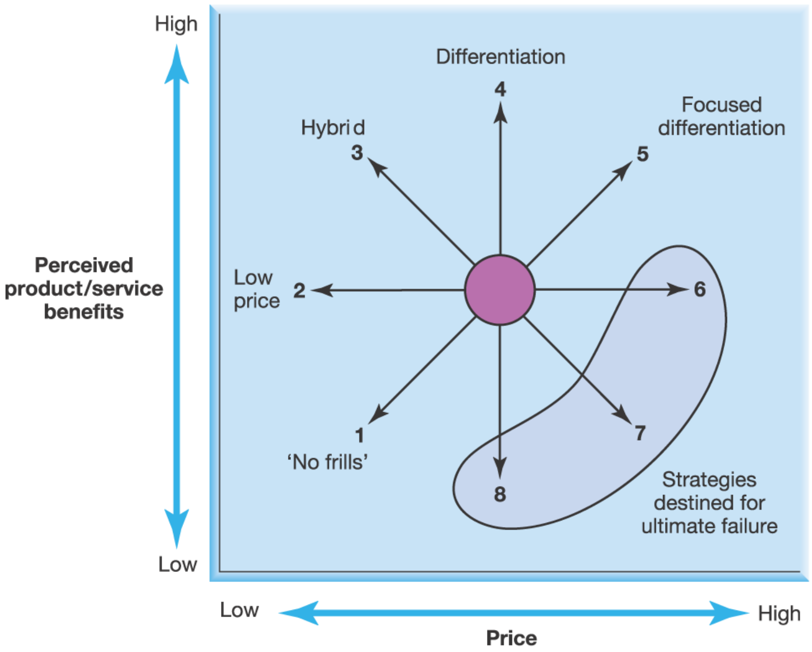
vii. Seizes opportunities

viii. Rationalize capital

**SOLUTION FOUR**

(a) With the help of a diagram, apply the Strategy Clock to the product or firm of your choice.

Bowman and Fawler(1996) analysed Porters generic strategies and developed the Strategic Clock to analyse strategies in terms of price and perceived value added. The clock shows eight strategies or approaches to creating value.




| | | Needs/risks | |
|---|---|---|---|
| 1 | 'No frills' | Likely to be segment specific | |
| 2 | Low price | Risk of price war and low margins; need to be cost leader | |
| 3 | Hybrid | Low cost base and reinvestment in low price and differentiation | Differentiation |
| 4 | Differentiation<br>(a) Without price premium | Perceived added value by user, yielding market share benefits | Differentiation |
| | (b) With price premium | Perceive added value sufficient to bear price premium | Differentiation |
| 5 | Focused differentiation | Perceived added value to a particular segment, warranting price premium | Differentiation |
| 6 | Increased price/standard value | Higher margins if competitors do not follow; risk of losing market share | Likely failure |
| 7 | Increased price/low value | Only feasible in monopoly situation | Likely failure |
| 8 | Low value/standard price | Loss of market share | Likely failure |

(b) Discuss five (5) barriers to entry in a competitive industry of your choice.

i. Government Policy

– A sanctioned monopoly (a non-government example ZESCO)

ii. Capital Requirements

– The telecommunications sector require high capital investment.

– Steel plants have capital requirement to build a steel works would be enormous

iii. Access to distribution

- Where distribution contract are locked in for long periods.

iv. Customer Loyalty and Brand Equity e.g. for brands like: Samsung, Apple, Marmite etc

- It took 12 years for iPhone brand equity to diminish sufficiently for proper competition

v. Product Differentiation- Think of a fast food delivery company…

vi. Switching Costs- Even though MTN and AIRTEL are very similar, it still takes time to become effective when changing the service provider , and even more time if you are over the age of 25!

**SOLUTION FIVE**

(a) The following are the comments on the definition of corporate governance:

(i) The management, awareness, evaluation and mitigation of risks are fundamental in all definitions of good governance. This includes the operation of adequate and appropriate systems of control.

(ii) The rationale that overall performance is enhanced by good supervision and management within set best practice guidelines underpins most definitions.

(iii) Good governance provides a framework for an organisation to pursue its strain an ethical and effective way and offers safeguards against misuse of resources, human, financial, physical or intellectual.

(iv) Good governance is not just about externally established codes; it also requires a willingness to apply the spirit as well as the letter of the law.

(v) Good corporate governance can attract new investment into companies, particularly in developing countries. It should mean that shareholders can trust those responsible for running and monitoring the company.

(vi) Accountability is generally a major theme in all governance frameworks, including accountability not just to shareholders but also to other stakeholders and accountability not just by directors but by auditors as well.

(vii) Corporate governance underpins capital market confidence in companies and in the government/regulators/tax authorities that administer them. It helps protect the value of shareholders' investment.

(b) The following are the advantages of centralization

(i) Control – Senior management can exercise greater control over the activities of the organisation and co-ordinate their subordinates and sub-units more easily.

(ii) Standardisation – Procedures can be standardised throughout the organisation.

(iii) Corporate view – Senior managers can make decisions from the point of view of the organisation as a whole, whereas subordinates would tend to make decisions from the point of view of their own department or section.

(iv) Balance of power – Centralised control enables an organisation to maintain the balance between different functions or departments.

(v) Experience counts – Senior managers ought to be more experienced and skillful in making decisions.

(vi) Lower overheads – When authority is delegated, there is often duplication of management effort at lower level of the hierarchy.

(vii) Leadership – In times of crisis, the organisation may need strong leadership by a central group of senior managers.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 11 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

10. Present value and Annuity tables are attached at the end of this paper.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

## SECTION A

**This question is compulsory and must be attempted.**

## QUESTION ONE – (COMPULSORY)

All business combinations are accounted for by the acquisition method which involves identifying the acquirer and determining the acquisition date. However, it might not be easy identifying the acquirer.

The following draft Statements of Financial Position relate to Ndola plc and its investees, Lubuto plc and Kawama plc as at 31 July 2023:

| | **Ndola Plc K'million** | **Lubuto K'million** | **Kawama Plc K'million** |
|---|---|---|---|
| **Non-current assets:** | | | |
| Property, plant and equipment | 3,000 | 1,000 | 1,000 |
| Investment property | 888 | 680 | 224 |
| Investments | 3,560 | 2,600 | 200 |
| | 7,448 | 4,280 | 1,424 |
| **Current assets:** | | | |
| Inventories | 1,080 | 368 | 300 |
| Trade receivables | 1,376 | 416 | 100 |
| Cash & bank | 368 | 104 | 64 |
| | 2,824 | 888 | 464 |
| **Total assets** | **10,272** | **5,168** | **1,888** |
| **Equity:** | | | |
| Share capital of K 1 each | 4,000 | 1,200 | 640 |
| Revaluation surplus | 2,400 | 960 | 400 |
| Retained earnings | 1,432 | 800 | 760 |
| | 7,832 | 2,960 | 1,800 |

| | | | |
|---|---|---|---|
| **Current liabilities:** | | | |
| Trade payables | 1,144 | 1,080 | 56 |
| Taxation | 1,296 | 1,128 | 32 |
| | 2,440 | 2,208 | 88 |
| **Total equity and liabilities** | **10,272** | **5,168** | **1,888** |

**Additional information:**

(i) Ndola Plc bought 720 million shares in Lubuto Plc on 1 August 2021, at a cost of K2.50 per share paid in cash. On that date, the retained earnings of Lubuto stood at K480 million and the net assets of Lubuto were equal to their carrying amounts except for certain items of property, plant and equipment, which had a fair value of K320 million in excess of their carrying amount.

Ndola has had a policy of carrying property, plant and equipment at fair values. This policy is implemented across all group companies from the date of acquisition. Hence, the fair values were incorporated into the books of Lubuto at the acquisition date, and depreciation provided for appropriately.

(ii) On 1 August 2022, Lubuto bought 512 million shares in Kawama Plc. The consideration for the purchase was K3 per share in cash. In addition, it was agreed that a further payment of K1 per share would be made on 31 July 2024. The fair value of this component of the consideration was K320 million on 1 August 2022, and K416 million on 31 July 2023. The cash payment was recorded in the books of Lubuto, but no entry was made to record the contingent element of the purchase price. On 1 August 2022, the retained earnings reserve of Kawama stood at K664 million, and the revaluation surplus at K360 million. Kawama has always had a policy of measuring property, plant and equipment at fair value, hence the carrying values of these assets were equal to their fair values at the acquisition date.

Kawama controls a famous brand name "Kopala", estimated to have a useful economic life of 20 years from 1 August 2022 with a fair value as at the same date of K40 million. This has not been recognized in the financial statements.

(iii) Ndola wishes to use the fair value method and the proportion of the fair value of the net assets method, to measure the non-controlling interests at the acquisition date of Lubuto Plc and Kawama Plc respectively. The fair value per ordinary share in Ndola Plc and Lubuto Plc at acquisition was K3.50 and K2.50 respectively.

(iv) On 31 July 2023, goodwill was assessed for impairment, and the calculation showed that an impairment loss of K40 million would be recognized in the case of Lubuto, and K20 million in the case of Kawama. No impairment losses had been recognized in the year to 31 July 2022.

(v) During the year, Lubuto bought goods from Kawama for a total sum of K16 million. These goods costed Kawama K12 million. 60% of the goods remained unsold by Lubuto at the reporting date.

(vi) During the year to 31 July 2023, the Directors of Ndola Plc have approved a plan to restructure its operations. The plan whose execution begins towards the end of the year to 31 July 2024 and is scheduled to complete before the end of that year has the following estimated expenditure:

| | **K' Million** |
|---|---|
| Staff redundancies | 100 |
| Retraining continuing staff | 144 |
| **Total** | **244** |

The estimated cost of the restructuring has not been accounted for in the draft accounts above.

**Required:**

(a) Explain two (2) reasons why it might be difficult to identify the acquirer. (4 marks)

(b) Prepare a Consolidated Statement of Financial Position for the Ndola Group for year ended 31 July 2023 in accordance with IFRS. (36 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any THREE (3) questions.**

**<u>QUESTION TWO</u>**

Mbuwa Plc (Mbuwa) manufactures farm implements for sale to both commercial and small scale farmers. It is usual practice for entities in Mbuwa's industry to lease farming plant and equipment to their customers as a way of making sales. Mbuwa Plc was recently advised to sell a building and lease it back, and to let out excessive space within its head office building as ways of easing its liquidity position.

Mbuwa Plc, which prepares its financial statements to 31 December each year requires advice on how to treat a number of transactions in its financial statements for the year to 31 December 2023, including the following:

**Lease of farming equipment to Dongo Farms Limited**

On 1 January 2023, Mbuwa leased out equipment to Dongo over a ten year lease. The manufacturing cost of the equipment was K1.5 million. Mbuwa normally sells this equipment as trading inventory at a cash price of K1.8 million. Dongo paid a deposit of K0.5 million and is required to pay annual rent of K0.2 million on 31 December each year over the lease term. Dongo will take over legal ownership of the plant at end of the lease term without any further payment.

Mbuwa has a policy of recognising profit on sales of trading inventory via leasing where permitted by applicable accounting standards. An interest rate of 10% should be applied where discounting or compounding is required. (6 marks)

**Sale and Lease back of a building**

On 1 January 2023, Mbuwa sold and immediately leased back a building it uses as a warehouse for trading inventory. The sale price which was settled immediately amounted to K20 million. The fair value of the building on 1 January 2023 was K34 million. The lease, whose term is 15 years requires Mbuwa to pay a rental of K2.63 million on 31 December each year during the lease term. The applicable interest rate is 10%.

The building was bought on 1 January 1988 at a cost of K50 million. Mbuwa has a policy of revaluing properties. This particular building was last revalued on 31 December 2021 to a fair value of K35 million. The total useful economic life of the building has always been estimated at 50 years (it had a remaining useful economic life of 15 years on 31 December 2022). The building has a fair value of K38 million on 31 December 2023. (7 marks)

**Lease of office space**

Mbuwa's head office is located in a four floor building acquired by the company on 1 January 2018 at a cost of K100 million. The building, whose total life has been estimated at 50 years, was last revalued to a fair value of K92 million on 31 December 2022.

On 1 January 2023, Mbuwa entered a 6 year lease letting out one floor of the building (all four floors have equal areas) to a third party. The third party paid a deposit of K0.5 million on 1 January 2023 and is required to pay rent on 31 December each year of the lease. Rent has been agreed at initially K0.8 million per year for the first three years and K0.6 million thereafter.

The building has a fair value of K85 million on 31 December 2023.

Mbuwa Plc's policy is to revalue all owner occupies properties and to use the fair value model in respect of investment properties. (7 marks)

**Required:**

Advise the Directors of Mbuwa Plc on the required accounting treatment of the above transactions, showing the relevant amounts to report in the financial statements for the year to 31 December 2023 in accordance with the IFRS framework.

**[Total: 20 Marks]**

## QUESTION THREE

(a) Tinashe Ltd is the parent company of a Zimbabwean multinational listed group of companies. Tinashe Ltd uses the dollar (*$)* as its functional currency. Tinashe Ltd recently acquired 80% of the equity shares of Mwamba Ltd, a company located in the Luapula Region of Zambia on 1 January 2022. The group's current financial year-end is 31 December 2022.

The head office of Mwamba Ltd is located in Zambia which uses the Zambian Kwacha (*K*) as its main currency. However, its staff are spread across various locations. Consequently, half of the staff are paid in *K* and the other half are paid in *$*. Mwamba Ltd has a high degree of autonomy and is not reliant on finance from Tinashe Ltd, nor do sales to Tinashe Ltd make up a significant proportion of their income. All of its sales and purchases are invoiced in *K* and therefore Mwamba Ltd raises most of its finance in *K*. Cash receipts are retained in *K*. Mwamba Ltd does not operate a *$* bank account. Mwamba Ltd is required by law to pay tax on its profits in *K*.

**Required**:

In accordance with IAS 21: The Effects of Changes in Foreign Exchange Rates, explain to the Directors of Tinashe Ltd, how the functional currency of Mwamba Ltd should be determined. (5 marks)

(b) Zed Technologies (Zed) imports customized equipment from Europe and China for onward delivery in Zambia. It is the policy of Zed that customers make payment for their supplies one year before delivery. Zed does not offer discounts for advance payments. The advance payment allows Zed to manage its import levels and to communicate delivery of supply to its customers. On 1 April 2021, Zed received K5 million from a customer to supply a customized equipment, and on 31 March 2022, Zed delivered the equipment. Zed's incremental borrowing rate on 1 April 2021 was 10%.

**Required**:

In line with IFRS 15: *Revenue from Contract with Customers*, (with calculations and entries, where necessary) as to how the above scenario would be treated by Zed during the year ended 31 March 2022. (5 marks)

(c) Mr Tendai, the Finance Director of Muzo Ltd, is known to be very strict in managing his staff and his dealings with other employees. A new product introduced by the company is yielding high sales. This has led to increases in cash shortages. In order to reduce the cash shortages, Management employed Anashe, a cousin of the Managing Director, Mr Panashe.

It is the policy of the company to recover cash shortages made by Cashiers by the end of the next working day. Over the years, Tendai has applied this policy without fear or favour. Anashe, since her employment as a Cashier, has made several cash shortages which have come to the attention of Tendai, the Finance Director and Panashe, the Managing Director. However, Anashe has never been asked to refund any of the cash shortages made so far. The financial statements for the year ended 31 December 2022 are being prepared and Panashe has instructed Tendai to write off the losses made by Anashe.

**Required**:

(i) Assess the possible ethical breaches committed by Anashe, Tendai and Panashe. (4 marks)

(ii) Recommend FOUR (4) possible actions that should be taken in dealing with the ethical breaches raised above. (6 marks)

**[Total:20 Marks]**

## QUESTION FOUR

(a) Mutale Ltd has two receivables that it has factored to a factoring agency, the Commerce Bank, in return for immediate cash proceeds of less than the face value of the invoices for the year ended 31 December 2022. Both receivables are due from long standing customers who are expected to pay in full and on time. In addition, Mutale Ltd has agreed to a three-month credit period with both customers.

The first receivable is for K400,000, and in return for assigning the receivable, Mutale Ltd has just received from the factor K360,000. Under the terms of the factoring arrangement, this is the first receivable for K400, 000, and in return for assigning the receivables, Mutale limited has just received from the factor K360,000. Under the terms of factoring arrangements, this is the only money that Mutale Ltd will receive regardless of when or even if the customer settles the debt; that is, the factoring arrangement is said to be "without recourse".

The second receivable is for K200,000, and in return for assigning the receivable, Mutale Ltd has just received K140,000. Under the terms of this factoring arrangement, if the customer settles the account on time, then a further K10,000 will be paid by the factoring agency, the Commerce Bank to Mutale Ltd, but if the customer does not settle the account in accordance with the agreed terms, then the receivable will be reassigned back to Mutale Ltd who will then be obliged to refund to the factor the original K140,000 plus a further K20,000. This factoring arrangement is said to be "with recourse".

Advise the Directors of Mutale Ltd on the proper accounting treatment of the monies received under the terms of the two factoring arrangements in the financial statements for the year ended 31 December 2022 in accordance with IFRS 9: Financial Instrument. (7 marks)

(b) An assessment of accounting practices for asset impairments is important in the context of financial reporting quality in that it requires the exercise of considerable management judgement and discretionary reporting. The importance of this issue is heightened during periods of ongoing economic uncertainty as a result of the need for companies to reflect the loss of economic value in a timely fashion through the mechanism of asset write-downs.

There are many factors which can affect the quality of impairment accounting and disclosures. These factors among others include changes in circumstances in the reporting period; the market capitalisation of the entity and the allocation of goodwill to cash generating units.

**Required**:

Discuss the significance of the THREE (3) factors above when conducting an impairment test under IAS 36: Impairment of Assets. (6 marks)

(c) Tawanda Ltd, a public limited company, operates in the technology sector in Zambia. The company prepares its financial statements to 31 March each year. Tawanda Ltd has decided to restructure one of its business segments. The plan was agreed by the board of directors on 1 January 2022 and this affected employees in two different locations. In the first location (A), half of the factory units were closed by 31 March 2022 and the affected employees' pension benefits were frozen. In effect, any new employees will not be eligible to join the defined benefit plan. After the restructuring, the present value of the defined benefit obligation in this location was K8 million.

**The following information relates to location A.**

| Value before restructuring | **K million** |
|---|---|
| Present value of defined obligation | (10) |
| Fair value of defined assets | 7 |
| Net pension liability | (3) |

In the second location (B), all activities were discontinued. It was agreed that employees will receive a payment of K4 million in exchange for the pension liability of K2.4 million in the unfunded pension scheme.

Tawanda Ltd estimates that the costs of the above restructuring excluding pension costs will be K6 million. Tawanda Ltd has not accounted for the effects of the restructuring in its financial statements because it is planning a rights issue and does not wish to depress the share price. Therefore, there has been no formal announcement of the restructuring. The pension liability is shown in non-current liabilities.

**Required**:

Recommend the accounting treatment of the above transaction in the financial statement of Tawanda Ltd including financial statement extracts for the year ended 31 March 2022 in accordance with relevant International Financial Reporting Standards. (7 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

The following financial statements relate to Waka Plc, a fast growing company in the retail sector.

Waka Statement of Financial Position as at 31 December:

| | **2023** | **2022** |
|---|---|---|
| | **K'm** | **K,m** |
| **ASSETS** | | |
| **Non-current** | | |
| Tangible | 383 | 224 |
| Equity Financial Asset (FVTOCI) | 149 | 140 |
| **Current** | | |
| Inventory | 145 | 65 |
| Receivables | 234 | 201 |
| Cash and Cash Equivalents | - | 72 |
| **Total Assets** | 911 | 702 |
| **EQUITY AND LIABILITIES** | | |
| **Equity** | | |
| Share Capital (K1 shares) | 150 | 150 |
| Revaluation Reserve | 78 | 38 |
| Retained Earnings | 400 | 316 |
| Other Components of Equity | 33 | 22 |
| **Total Equity** | 661 | 526 |
| **Non-current Liabilities** | | |
| 5% convertible Loan Notes (2020) | 100 | 94 |
| Deferred Tax | 22 | 15 |
| | 122 | 109 |
| **Current Liabilities** | | |
| Payables | 99 | 67 |
| Short Term Borrowings | 29 | - |
| | 128 | 67 |
| Total equity and Liabilities | 911 | 702 |

**Waka Statement of Profit or Loss and Other Comprehensive Income for the ended 31 December**:

| | 2023 K'm | 2022 K'm |
|---|---|---|
| Revenue | 1,200 | 1,010 |
| Cost of Sales | (868) | (753) |
| Gross Profit | 332 | 257 |
| Distribution Costs | (143) | (110) |
| Administrative Expenses | (72) | (51) |
| Operating Profit | 117 | 96 |
| Investment Income | 47 | - |
| Finance Costs | (10) | (3) |
| Profit before tax | 154 | 93 |
| Income Tax Expense | (45) | (30) |
| Profit for the year | 109 | 63 |
| Other Comprehensive Income: | | |
| Items that will not be reclassified in profit or loss | | |
| Revaluation of PPE | 50 | 12 |
| Remeasurement of FVTOCI asset | 15 | 6 |
| Tax effects of other comprehensive income | (14) | (7) |
| Other comprehensive Income for the year | 51 | 11 |
| Total Comprehensive Income for the Year | 160 | 74 |

Further, your assistant has briefed you that Waka secured a short term overdraft facility of up to K40 million that expires in June 2024. Directors have also applied for a long term loan of K50 million and are still awaiting response from the lender.

Your preliminary assessment of Waka Plc reveals the following:

(a) Waka appears to have invested heavily in property, plant and equipment in the year, which seems to have resulted in an overdraft at the year end.
(b) Its share price increased significantly from K2.54 on 31 December 2022 to K9.27 on 31 December 2023.
(c) Waka paid a dividend of K25 million in 2023 (K50 million in 2022).

**Required:**

Analyse the financial performance of Waka for the year ended 31 December 2023 and its financial position as at 31 December 2023.

**[Total: 20 Marks]**

**END OF PAPER**

## Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1-T))}\beta_e\right] + \left[\frac{V_d(1-T)}{(V_e + V_d(1-T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1+g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1-T)$$

The Fisher formula

$$(1+i) = (1+r)(1+h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1+h_c)}{(1+h_b)} \qquad F_0 = S_0 x \frac{(1+i_c)}{(1+i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}} \left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

## Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

*Discount rate (r)*

| *Periods* (n) | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·990 | 0·980 | 0·971 | 0·962 | 0·952 | 0·943 | 0·935 | 0·926 | 0·917 | 0·909 | 1 |
| 2 | 0·980 | 0·961 | 0·943 | 0·925 | 0·907 | 0·890 | 0·873 | 0·857 | 0·842 | 0·826 | 2 |
| 3 | 0·971 | 0·942 | 0·915 | 0·889 | 0·864 | 0·840 | 0·816 | 0·794 | 0·772 | 0·751 | 3 |
| 4 | 0·961 | 0·924 | 0·888 | 0·855 | 0·823 | 0·792 | 0·763 | 0·735 | 0·708 | 0·683 | 4 |
| 5 | 0·951 | 0·906 | 0·863 | 0·822 | 0·784 | 0·747 | 0·713 | 0·681 | 0·650 | 0·621 | 5 |
| 6 | 0·942 | 0·888 | 0·837 | 0·790 | 0·746 | 0·705 | 0·666 | 0·630 | 0·596 | 0·564 | 6 |
| 7 | 0·933 | 0·871 | 0·813 | 0·760 | 0·711 | 0·665 | 0·623 | 0·583 | 0·547 | 0·513 | 7 |
| 8 | 0·923 | 0·853 | 0·789 | 0·731 | 0·677 | 0·627 | 0·582 | 0·540 | 0·502 | 0·467 | 8 |
| 9 | 0·941 | 0·837 | 0·766 | 0·703 | 0·645 | 0·592 | 0·544 | 0·500 | 0·460 | 0·424 | 9 |
| 10 | 0·905 | 0·820 | 0·744 | 0·676 | 0·614 | 0·558 | 0·508 | 0·463 | 0·422 | 0·386 | 10 |
| 11 | 0·896 | 0·804 | 0·722 | 0·650 | 0·585 | 0·527 | 0·475 | 0·429 | 0·388 | 0·305 | 11 |
| 12 | 0·887 | 0·788 | 0·701 | 0·625 | 0·557 | 0·497 | 0·444 | 0·397 | 0·356 | 0·319 | 12 |
| 13 | 0·879 | 0·773 | 0·681 | 0·601 | 0·530 | 0·469 | 0·415 | 0·368 | 0·326 | 0·290 | 13 |
| 14 | 0·870 | 0·758 | 0·661 | 0·577 | 0·505 | 0·442 | 0·388 | 0·340 | 0·299 | 0·263 | 14 |
| 15 | 0·861 | 0·743 | 0·642 | 0·555 | 0·481 | 0·417 | 0·362 | 0·315 | 0·275 | 0·239 | 15 |

| (n) | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·901 | 0·893 | 0·885 | 0·877 | 0·870 | 0·862 | 0·855 | 0·847 | 0·840 | 0·833 | 1 |
| 2 | 0·812 | 0·797 | 0·783 | 0·769 | 0·756 | 0·743 | 0·731 | 0·718 | 0·706 | 0·694 | 2 |
| 3 | 0·731 | 0·712 | 0·693 | 0·675 | 0·658 | 0·641 | 0·624 | 0·609 | 0·593 | 0·579 | 3 |
| 4 | 0·659 | 0·636 | 0·613 | 0·592 | 0·572 | 0·552 | 0·534 | 0·516 | 0·499 | 0·482 | 4 |
| 5 | 0·593 | 0·567 | 0·543 | 0·519 | 0·497 | 0·476 | 0·456 | 0·437 | 0·419 | 0·402 | 5 |
| 6 | 0·535 | 0·507 | 0·480 | 0·456 | 0·432 | 0·410 | 0·390 | 0·370 | 0·352 | 0·335 | 6 |
| 7 | 0·482 | 0·452 | 0·425 | 0·400 | 0·376 | 0·354 | 0·333 | 0·314 | 0·296 | 0·279 | 7 |
| 8 | 0·434 | 0·404 | 0·376 | 0·351 | 0·327 | 0·305 | 0·285 | 0·266 | 0·249 | 0·233 | 8 |
| 9 | 0·391 | 0·361 | 0·333 | 0·308 | 0·284 | 0·263 | 0·243 | 0·225 | 0·209 | 0·194 | 9 |
| 10 | 0·352 | 0·322 | 0·295 | 0·270 | 0·247 | 0·227 | 0·208 | 0·191 | 0·176 | 0·162 | 10 |
| 11 | 0·317 | 0·287 | 0·261 | 0·237 | 0·215 | 0·195 | 0·178 | 0·162 | 0·148 | 0·135 | 11 |
| 12 | 0·286 | 0·257 | 0·231 | 0·208 | 0·187 | 0·168 | 0·152 | 0·137 | 0·124 | 0·112 | 12 |
| 13 | 0·258 | 0·229 | 0·204 | 0·182 | 0·163 | 0·145 | 0·130 | 0·116 | 0·104 | 0·093 | 13 |
| 14 | 0·232 | 0·205 | 0·181 | 0·160 | 0·141 | 0·125 | 0·111 | 0·099 | 0·088 | 0·078 | 14 |
| 15 | 0·209 | 0·183 | 0·160 | 0·140 | 0·123 | 0·108 | 0·095 | 0·084 | 0·074 | 0·065 | 15 |

## Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

*Discount rate (r)*

| *Periods* (n) | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·990 | 0·980 | 0·971 | 0·962 | 0·952 | 0·943 | 0·935 | 0·926 | 0·917 | 0·909 | 1 |
| 2 | 1·970 | 1·942 | 1·913 | 1·886 | 1·859 | 1·833 | 1·808 | 1·783 | 1·759 | 1·736 | 2 |
| 3 | 2·941 | 2·884 | 2·829 | 2·775 | 2·723 | 2·673 | 2·624 | 2·577 | 2·531 | 2·487 | 3 |
| 4 | 3·902 | 3·808 | 3·717 | 3·630 | 3·546 | 3·465 | 3·387 | 3·312 | 3·240 | 3·170 | 4 |
| 5 | 4·853 | 4·713 | 4·580 | 4·452 | 4·329 | 4·212 | 4·100 | 3·993 | 3·890 | 3·791 | 5 |
| 6 | 5·795 | 5·601 | 5·417 | 5·242 | 5·076 | 4·917 | 4·767 | 4·623 | 4·486 | 4·355 | 6 |
| 7 | 6·728 | 6·472 | 6·230 | 6·002 | 5·786 | 5·582 | 5·389 | 5·206 | 5·033 | 4·868 | 7 |
| 8 | 7·652 | 7·325 | 7·020 | 6·733 | 6·463 | 6·210 | 5·971 | 5·747 | 5·535 | 5·335 | 8 |
| 9 | 8·566 | 8·162 | 7·786 | 7·435 | 7·108 | 6·802 | 6·515 | 6·247 | 5·995 | 5·759 | 9 |
| 10 | 9·471 | 8·983 | 8·530 | 8·111 | 7·722 | 7·360 | 7·024 | 6·710 | 6·418 | 6·145 | 10 |
| 11 | 10·37 | 9·787 | 9·253 | 8·760 | 8·306 | 7·887 | 7·499 | 7·139 | 6·805 | 6·495 | 11 |
| 12 | 11·26 | 10·58 | 9·954 | 9·385 | 8·863 | 8·384 | 7·943 | 7·536 | 7·161 | 6·814 | 12 |
| 13 | 12·13 | 11·35 | 10·63 | 9·986 | 9·394 | 8·853 | 8·358 | 7·904 | 7·487 | 7·103 | 13 |
| 14 | 13·00 | 12·11 | 11·30 | 10·56 | 9·899 | 9·295 | 8·745 | 8·244 | 7·786 | 7·367 | 14 |
| 15 | 13·87 | 12·85 | 11·94 | 11·12 | 10·38 | 9·712 | 9·108 | 8·559 | 8·061 | 7·606 | 15 |

| (n) | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·901 | 0·893 | 0·885 | 0·877 | 0·870 | 0·862 | 0·855 | 0·847 | 0·840 | 0·833 | 1 |
| 2 | 1·713 | 1·690 | 1·668 | 1·647 | 1·626 | 1·605 | 1·585 | 1·566 | 1·547 | 1·528 | 2 |
| 3 | 2·444 | 2·402 | 2·361 | 2·322 | 2·283 | 2·246 | 2·210 | 2·174 | 2·140 | 2·106 | 3 |
| 4 | 3·102 | 3·037 | 2·974 | 2·914 | 2·855 | 2·798 | 2·743 | 2·690 | 2·639 | 2·589 | 4 |
| 5 | 3·696 | 3·605 | 3·517 | 3·433 | 3·352 | 3·274 | 3·199 | 3·127 | 3·058 | 2·991 | 5 |
| 6 | 4·231 | 4·111 | 3·998 | 3·889 | 3·784 | 3·685 | 3·589 | 3·498 | 3·410 | 3·326 | 6 |
| 7 | 4·712 | 4·564 | 4·423 | 4·288 | 4·160 | 4·039 | 3·922 | 3·812 | 3·706 | 3·605 | 7 |
| 8 | 5·146 | 4·968 | 4·799 | 4·639 | 4·487 | 4·344 | 4·207 | 4·078 | 3·954 | 3·837 | 8 |
| 9 | 5·537 | 5·328 | 5·132 | 4·946 | 4·772 | 4·607 | 4·451 | 4·303 | 4·163 | 4·031 | 9 |
| 10 | 5·889 | 5·650 | 5·426 | 5·216 | 5·019 | 4·833 | 4·659 | 4·494 | 4·339 | 4·192 | 10 |
| 11 | 6·207 | 5·938 | 5·687 | 5·453 | 5·234 | 5·029 | 4·836 | 4·656 | 4·486 | 4·327 | 11 |
| 12 | 6·492 | 6·194 | 5·918 | 5·660 | 5·421 | 5·197 | 4·988 | 4·793 | 4·611 | 4·439 | 12 |
| 13 | 6·750 | 6·424 | 6·122 | 5·842 | 5·583 | 5·342 | 5·118 | 4·910 | 4·715 | 4·533 | 13 |
| 14 | 6·982 | 6·628 | 6·302 | 6·002 | 5·724 | 5·468 | 5·229 | 5·008 | 4·802 | 4·611 | 14 |
| 15 | 7·191 | 6·811 | 6·462 | 6·142 | 5·847 | 5·575 | 5·324 | 5·092 | 4·876 | 4·675 | 15 |

**Standard normal distribution table**

| | 0·00 | 0·01 | 0·02 | 0·03 | 0·04 | 0·05 | 0·06 | 0·07 | 0·08 | 0·09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 0·0 | 0·0000 | 0·0040 | 0·0080 | 0·0120 | 0·0160 | 0·0199 | 0·0239 | 0·0279 | 0·0319 | 0·0359 |
| 0·1 | 0·0398 | 0·0438 | 0·0478 | 0·0517 | 0·0557 | 0·0596 | 0·0636 | 0·0675 | 0·0714 | 0·0753 |
| 0·2 | 0·0793 | 0·0832 | 0·0871 | 0·0910 | 0·0948 | 0·0987 | 0·1026 | 0·1064 | 0·1103 | 0·1141 |
| 0·3 | 0·1179 | 0·1217 | 0·1255 | 0·1293 | 0·1331 | 0·1368 | 0·1406 | 0·1443 | 0·1480 | 0·1517 |
| 0·4 | 0·1554 | 0·1591 | 0·1628 | 0·1664 | 0·1700 | 0·1736 | 0·1772 | 0·1808 | 0·1844 | 0·1879 |
| 0·5 | 0·1915 | 0·1950 | 0·1985 | 0·2019 | 0·2054 | 0·2088 | 0·2123 | 0·2157 | 0·2190 | 0·2224 |
| 0·6 | 0·2257 | 0·2291 | 0·2324 | 0·2357 | 0·2389 | 0·2422 | 0·2454 | 0·2486 | 0·2517 | 0·2549 |
| 0·7 | 0·2580 | 0·2611 | 0·2642 | 0·2673 | 0·2704 | 0·2734 | 0·2764 | 0·2794 | 0·2823 | 0·2852 |
| 0·8 | 0·2881 | 0·2910 | 0·2939 | 0·2967 | 0·2995 | 0·3023 | 0·3051 | 0·3078 | 0·3106 | 0·3133 |
| 0·9 | 0·3159 | 0·3186 | 0·3212 | 0·3238 | 0·3264 | 0·3289 | 0·3315 | 0·3340 | 0·3365 | 0·3389 |
| 1·0 | 0·3413 | 0·3438 | 0·3461 | 0·3485 | 0·3508 | 0·3531 | 0·3554 | 0·3577 | 0·3599 | 0·3621 |
| 1·1 | 0·3643 | 0·3665 | 0·3686 | 0·3708 | 0·3729 | 0·3749 | 0·3770 | 0·3790 | 0·3810 | 0·3830 |
| 1·2 | 0·3849 | 0·3869 | 0·3888 | 0·3907 | 0·3925 | 0·3944 | 0·3962 | 0·3980 | 0·3997 | 0·4015 |
| 1·3 | 0·4032 | 0·4049 | 0·4066 | 0·4082 | 0·4099 | 0·4115 | 0·4131 | 0·4147 | 0·4162 | 0·4177 |
| 1·4 | 0·4192 | 0·4207 | 0·4222 | 0·4236 | 0·4251 | 0·4265 | 0·4279 | 0·4292 | 0·4306 | 0·4319 |
| 1·5 | 0·4332 | 0·4345 | 0·4357 | 0·4370 | 0·4382 | 0·4394 | 0·4406 | 0·4418 | 0·4429 | 0·4441 |
| 1·6 | 0·4452 | 0·4463 | 0·4474 | 0·4484 | 0·4495 | 0·4505 | 0·4515 | 0·4525 | 0·4535 | 0·4545 |
| 1·7 | 0·4554 | 0·4564 | 0·4573 | 0·4582 | 0·4591 | 0·4599 | 0·4608 | 0·4616 | 0·4625 | 0·4633 |
| 1·8 | 0·4641 | 0·4649 | 0·4656 | 0·4664 | 0·4671 | 0·4678 | 0·4686 | 0·4693 | 0·4699 | 0·4706 |
| 1·9 | 0·4713 | 0·4719 | 0·4726 | 0·4732 | 0·4738 | 0·4744 | 0·4750 | 0·4756 | 0·4761 | 0·4767 |
| 2·0 | 0·4772 | 0·4778 | 0·4783 | 0·4788 | 0·4793 | 0·4798 | 0·4803 | 0·4808 | 0·4812 | 0·4817 |
| 2·1 | 0·4821 | 0·4826 | 0·4830 | 0·4834 | 0·4838 | 0·4842 | 0·4846 | 0·4850 | 0·4854 | 0·4857 |
| 2·2 | 0·4861 | 0·4864 | 0·4868 | 0·4871 | 0·4875 | 0·4878 | 0·4881 | 0·4884 | 0·4887 | 0·4890 |
| 2·3 | 0·4893 | 0·4896 | 0·4898 | 0·4901 | 0·4904 | 0·4906 | 0·4909 | 0·4911 | 0·4913 | 0·4916 |
| 2·4 | 0·4918 | 0·4920 | 0·4922 | 0·4925 | 0·4927 | 0·4929 | 0·4931 | 0·4932 | 0·4934 | 0·4936 |
| 2·5 | 0·4938 | 0·4940 | 0·4941 | 0·4943 | 0·4945 | 0·4946 | 0·4948 | 0·4949 | 0·4951 | 0·4952 |
| 2·6 | 0·4953 | 0·4955 | 0·4956 | 0·4957 | 0·4959 | 0·4960 | 0·4961 | 0·4962 | 0·4963 | 0·4964 |
| 2·7 | 0·4965 | 0·4966 | 0·4967 | 0·4968 | 0·4969 | 0·4970 | 0·4971 | 0·4972 | 0·4973 | 0·4974 |
| 2·8 | 0·4974 | 0·4975 | 0·4976 | 0·4977 | 0·4977 | 0·4978 | 0·4979 | 0·4979 | 0·4980 | 0·4981 |
| 2·9 | 0·4981 | 0·4982 | 0·4982 | 0·4983 | 0·4984 | 0·4984 | 0·4985 | 0·4985 | 0·4986 | 0·4986 |
| 3·0 | 0·4987 | 0·4987 | 0·4987 | 0·4988 | 0·4988 | 0·4989 | 0·4989 | 0·4989 | 0·4990 | 0·4990 |

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

# CA3.1 ADVANCED FINANICAL REPORTING SUGGESTED SOLUTIONS

## SOLUTION ONE

**(a)**

In most business combinations identifying the acquirer is straightforward and is consistent with the transfer of legal ownership. However, the identification can be more complex for business combinations when:

(i) Businesses are brought together by contract alone such that neither entity has legal ownership of the other
(ii) A combination is affected by legal merger of two or more entities or through acquisition by a newly created parent entity.
(iii) There is no consideration transferred (combination by contract), or
(iv) A smaller entity arranges to be acquired by a large one.

**(b)**

**Ndola Group**

**Consolidated Statement of Financial Position as at 31 July 2023**

| | K million |
|---|---|
| **Assets** | |
| **Non-current assets:** | |
| Property, plant and equipment (3,000+1,000+1,000) | 5,000 |
| Investment property (888+680 +224) | 1, 792 |
| Other investments (3,560+2,600+200-1,800Wk3-1,536Wk3) | 3,024 |
| Brand name (40-2)Wk3 | 38 |
| Goodwill (960 + 275.68)Wk3 | 1,235.68 |
| | 11,089.68 |
| **Current assets:** | |
| Inventories (1,080+368+300-2.4URP) | 1,745.6 |
| Trade receivables (1,376+416+100 | 1,892 |
| Cash & bank (368+104+64) | 536 |
| | 4,173.6 |
| **Total assets** | **15,263.28** |
| | |
| **Equity:** | |
| Share capital K1 | 4,000 |
| Revaluation surplus (Wk5) | 2,803.2 |

| | |
|---|---|
| Retained earnings (Wk5) | 1,466.37 |
| | 8,269.57 |
| Non-controlling interest (787.2+954.51)Wk4 | 1,741.71 |
| | 10,011.28 |
| **Current liabilities:** | |
| Trade payables (1,144+1,080+56) | 2,280 |
| Taxation (1,296+1,128+32) | 2,456 |
| Provision for Restructuring | 100 |
| Contingent consideration | 416 |
| | 5,252 |
| **Total equity and liabilities** | **15,263.28** |

**Workings:**

**(Wk1) Group structure**

**Ndola**

$\frac{720}{1200} \times 100 = 60\%$

**Lubuto (2yrs)**

$\frac{512}{640} \times 100 = 80\%$

**Kawama (1yr)**

**Summary of percentages**

| | Lubuto | Kawama |
|---|---|---|
| Parent % - Direct | 60% | - |
| Indirect | - | 48% (60% x 80%) |
| Non-controlling interests % | 40% | 52% |
| | 100% | 100% |

**(Wk2) Net assets schedules**

| | Acq. date K'million | Rep. date K'million | Post-acq K'million |
|---|---|---|---|
| **Lubuto** | | | |
| Share capital | 1,200 | 1,200 | - |
| Revaluation surplus *(inclusive of fair value adjustment)* | 320 | 960 | 640 |
| Retained earnings | 480 | 800 | 320 |
| | 2,000 | 2,960 | 960 |
| ***Alternatively,*** | | | |
| Share capital | 1,200 | 1,200 | - |
| Revaluation surplus | - | 960 | 960 |
| Retained earnings | 480 | 800 | 320 |
| Fair value adj-PPE | 320 | - | (320) |
| | 2,000 | 2,960 | 960 |

**Note:** Post-acquisition movements consist of retained earnings of 320 and revaluation surplus of 640 (960-320)

**Kawama**

| | | | |
|---|---|---|---|
| Share capital | 640 | 640 | - |
| Revaluation surplus | 360 | 400 | 40 |
| Retained earnings | 664 | 760 | 96 |
| Brand name | 40 | 40 | - |
| Brand amortisation (40/20yrs) | - | (2) | (2) |
| Unrealised profit (60% x (20 – 16)) | - | (2.4) | (2.4) |
| | 1,704 | 1,835.6 | 131.6 |

**(Wk3) Goodwill**

**Lubuto (Fair value method)**

| | K million |
|---|---|
| Cost of investment (720 x 2.5) | 1,800 |
| Fair value of NCI at acquisition ((1200 – 720) x 2.5) | 1,200 |
| | 3,000 |
| Fair value of identifiable net assets acquired (Wk2) | (2,000) |
| Goodwill at acquisition | 1,000 |
| Impairment to date | (40) |
| At reporting | 960 |

**Kawama (Proportionate share method)**

| | **K'million** |
|---|---|
| **Cost of investment:** | |
| Cash payment (512 x 3) | 1,536 |
| Contingent consideration | 320 |
| | 1,856 |
| Less: Indirect holding adjustment (40% x 1856) | (742.4) |
| NCI at acquisition (52% x 1704(Wk2)) | 886.08 |

| | |
|---|---|
| | 1,999.68 |
| Fair value of identifiable net assets acquired (Wk2) | (1, 704) |
| Goodwill at acquisition | 295.68 |
| Impairment to date | (20) |
| At reporting | 275.68 |

**(Wk4) Non-controlling interests**

| | K'million |
|---|---|
| **Lubuto** (Fair value method) | |
| Fair value of NCI at acquisition (Wk3) | 1,200 |
| Add: NCI % of post –acquisition movements (40% x 960) Wk2 | 384 |
| Less: Indirect holding adjustment (Wk3) | (742.4) |
| Less: NCI% of impairment (40% x 40) Wk2 | (16) |
| Less: Share of movement in contingent consideration (40%x96) | (38.4) |
| | **787.2** |
| **Kawama** (Proportionate share method) | |
| NCI at acquisition (Wk3) | 886.08 |
| Add: NCI % of post –acquisition movements: (52% x 131.6) At reporting | 68.43 |
| | **954.51** |

**(Wk5) Group retained earnings**

| | K'million |
|---|---|
| **Ndola** | |
| Balance b/d | 1,432 |
| Movement in contingent consideration (416-320) x 60% | (57.6) |
| Restructuring | (100) |

**Lubuto**

| | |
|---|---|
| Parent% of post-acquisition earnings (60% x 320) Wk2 | 192 |
| Parent% of impairment (60% x 40) | (24) |
| **Kawama** | |
| Parent% of post-acquisition earnings (48% x (131.6-40)) Wk2 | 43.97 |
| Impairment | (20) |
| At reporting | **1,466.37** |

| **Group revaluation surplus** | **K'million** |
|---|---|
| **Ndola** | |
| Balance b/d | 2,400 |
| **Lubuto** | |
| Parent% of post-acquisition (60% x 640)Wk2 | 384 |
| **Kawama** | |
| Parent% of post-acquisition (48% x 40)Wk2 | 19.2 |
| At reporting **2,803.2** | |

## SOLUTION TWO

### Lease of farming equipment to Dongo Farms Limited (Dongo)

This transaction must be accounted for in accordance with IFRS 16 Leases.

The lease appears to be a finance lease as Mbuwa has transferred substantially all economic benefits to the lessee. Ownership of the equipment passes at end of lease term.

Mbuwa will therefore recognize a receivable, Net Investment in the Lease at the PV of the lessor's MLPs initially and derecognize the inventory. As per policy, Mbuwa will recognize gross profit at inception of the lease. Subsequently, the lease receivable must be carried at amortised cost using the lessor's return of 10%.

The following amounts will be reported in Mbuwa's FS for the year to 31.12.23:

| | | K'm |
|---|---|---|
| Cost of the equipment as trading inventory to report in cost of sales | | 1.5 |
| Initial gross profit recognized at 1.1.23 | (balance) | 0.3 |
| Amount to report in sales | | 1.8 |
| Less deposit received | | (0.5) |
| Net investment in finance lease at 1.1.23 | | 1.3 |
| Finance income in PL for the y/e 31.12.23 | 10%X1.3 | 0.13 |
| Cash received 31.12.23 | | (0.2) |
| Net investment in finance lease at 31.12.23 | | 1.23 |

### Sale and Lease back of a building

The sale of the building does not seem to have commercial substance as a sale in accordance with IFRS 15. Mbuwa appears to retain all the economic benefits from the building over its entire remaining life. The sale and lease back will therefore NOT be accounted for under IFRS 16. Instead, the transaction appears to be a financing arrangement with Mbuwa merely obtaining a loan and pledging the building as security. Mbuwa should therefore continue to account for ownership of the building in accordance with IAS 16 per the entity's usual revaluation policy. The purported sale proceeds must be recognized as a loan initiated measured at the amount of disposal proceeds and subsequently at amortised cost. The following amounts will be reported in the FS for the y/e 31.12.23:

| | K'm |
|---|---|
| 1. Loan liability | |
| Initial liability | 20 |
| Finance cost to report in PL for y/e 31.12.23 10%X20 | 2 |
| Cash paid on 31.12.23 | (2.63) |
| Loan liability at 31.12.23 | 19.37 |

2. Building

| | | |
|---|---|---|
| | | K'm |
| Carrying amount b/d 1.1.23 | | |
| FV at last revaluation 31.12.21 | | 35 |
| Less depreciation y/e 31.12.22 | 35/16 | (2.19) |
| Carrying amount at 1.1.23 | | 32.81 |
| Depreciation charge in PL y/e 31.12.23 | | (2.91) |
| Carrying amount at 31.12.23 before revaluation | | 30.62 |
| Revaluation gain | (balance) | 7.38 |
| Fair value to report as carrying amount at 31.12.23 | | 38 |
| Accounting for the revaluation gain | | |
| Cost model carrying amount | 50X14/50 | 14 |

Carrying amount before revaluation is already above cost model carrying amount. Therefore, the whole revaluation gain will be reported in OCI.

**Lease of office space**

The building will primarily be accounted for as owner occupied property under IAS 16. However, IAS 40 and IFRS 16 will apply to the component let out from the point the lease begins. The lease appears to be an operating lease as the lease term is an insignificant part of the total life of the building. The building must be split for accounting purposes into the owner occupied and investment property components on 1.1.23.

Mbuwa will recognize the rental income from the operating lease on a straight line basis over the lease term in accordance with IFRS 16.

Amounts to report in the FS for the y/e 31.12.23 are as follows:

1. Operating lease rentals

| | |
|---|---|
| | K'm |
| Total MLPs (0.5+0.8X3+0.6X3) | 4.7 |
| Rental income to report in PL for the y/e 31.12.23 4.7/6 | 0.78 |
| Prepaid rental income to report in liabilities at 31.12.23 (0.5+0.8-0.78) | 0.52 |

2. Building

| | Owner occupied K'm | Investment property K'm |
|---|---|---|
| Carrying amount at 1.1.23 92X3/4 and 92X1/4 | 69 | 23 |
| Depreciation to charge in PL y/e 31.12.23 69/45 | (1.53) | - |
| Carrying amount at 31.12.23 before revaluation | 67.47 | 23 |
| Revaluation loss (balance) | (3.72) | (1.75) |
| Fair value to report inn SFP at 31.12.23 85X3/4 and 85/4 | 63.75 | 21.25 |

| | | | |
|---|---|---|---|
| Cost model carrying amount 3/4X100X44/50 | | 66 | - |
| Revaluation loss to report in: | | | |
| OCI | (67.47-66) | 1.47 | - |
| PL | (66-63.75) | 2.25 | 1.75 |

**SOLUTION THREE**

(a) In accordance with IAS 21, the functional currency is the currency of the primary economic environment in which the entity operates. With a foreign acquisition, consideration should be given as to whether Mwamba Ltd should adopt the same functional currency as its parent, Tinashe Ltd. However, Mwamba Ltd appears to be largely independent and is not reliant on Tinashe Ltd for either sales or finance.

It is not required therefore for Mwamba Ltd to adopt the same functional currency as Tinashe Ltd which in this case is the dollar ($). Mwamba Ltd does not appear to have transactions in dollars or have a dollar bank account and it can be concluded that the dollar should not be their functional currency.

In determining its functional currency, Mwamba Ltd should consider the currency which mainly influences its sales price of goods and the currency which mainly influences its labour and other costs. This is likely to be the currency which goods are invoiced in and the currency in which costs are settled. The location of the entity's head office is irrelevant except to the extent that it is likely that the costs of running the head office are likely to be settled in the domestic currency. For Mwamba Ltd, it appears that the vast majority of their transactions are in Zambian (K). All sales and purchases are invoiced in Zambia Kwacha as well as approximately half of their staff being paid in Zambian (K). Funds for finance are raised in Zambian (K) which further suggests that Zambia (K) should be chosen as the functional currency of Mwamba Ltd.

(b) IFRS 15 requires an entity to recognize revenue at an amount that reflects the price that a customer would have paid for the promised goods or services if the customer had paid cash for those goods or services when (or as) the entity transfers to the customer. The amount therefore should reflect the cash selling price at the transaction date.

Where a contract requires payment by a customer significantly before performance, the contract is said to contain significant financing component, unless the prepayment is clearly for reasons other than financing.

There was no significant financing component in the arrangement between Zed and the retailer. The upfront payment was made to secure the future supply of the product and not to provide Zed with the provision of finance.

Hence, the cash selling price is the amount received. Entries required:

| | **DR** | **CR** |
|---|---|---|
| | **K000** | **K000** |
| At 01 April 2022: | | |
| Bank | 5,000 | |
| Contract liability | | 5,000 |
| | | |
| At 31 March 2022: | | |
| Contract liability | 5,000 | |
| Revenue | | 5,000 |

(c) (i) The following fundamental ethical principles might have been breached:

Integrity

The Accountant is expected to be straightforward and honest in his dealings. By overlooking the shortages of Anashe when there is a policy for shortages to be refunded the next working day, it only suggests that the Accountant is not honest and straightforward in his dealings.

Objectivity

This principle enjoins the Accountant to be unbiased in his dealing without any undue influence. The "special" treatment given to Anashe with respect to her shortages made, can only suggest that she is treated differently from the others. The influence of the Managing Director on Anashe's case seems to have impaired Tendai's objectivity.

Professional competence

The instruction of the Managing Director to Tendai that the shortage made by Anashe should be written off, can only suggest that the professional competence the Accountant is expected to demonstrate on the job seems to be impaired also. Writing off assets (cash) that do not lack recoverability is not consistent with Accounting standards.

Professional behaviour

An Accountant is expected to conduct himself in a way that brings respect and honour and not disrepute to the Accountancy profession. The disposition of Tendai on the issue of Anashe to the point where he is "directed" by the Managing Director that losses made by her are written off. This puts the Accountancy profession into disrepute when an Accountant is expected to be aware of the condition under which an asset/receivable is written off.

(ii) Possible actions that the Finance Director should take include:

1. The Finance Director needs to engage the Cashiers including Anashe on the possible cause of the cash shortages they make for an immediate solution to be given.
2. The Finance Director should also organize requisite training for the Cashiers including Anashe to minimize cases of cash shortages, if not eradicated entirely.
3. Tendai needs to engage the Managing Director on the "special treatment" Anashe is being given on her cash shortages and its negative implication on the company. The Managing Director should be made to understand how this special treatment affects the work of the relative, Anashe herself and the other Cashiers.
4. Tendai, again, needs to discuss with the Managing Director on why the cash shortages made by Anashe cannot be written off, and the need to find a way for the accumulated shortages to be recovered.

5. Anashe needs to be engaged that all cash shortages made by her would be refunded from her to the company to serve as a deterrent.
6. Where the Managing Director insists that the loss made by Anashe should be written off, the Finance Director must draw the attention of the company's Board to the issue.
7. Tendai can always seek advice from the Professional body especially when the Board of Directors is not able to provide guidance on the matter.

**SOLUTION FOUR**

(a) Accounting for factoring arrangements depends on whether there have been sales of receivables or the arrangement is a financing one with receivables used as collateral. This is determined by using the substance of the transaction as to whether rewards and risks associated with the receivables, which is bad debt, is transferred to the factor or retained by the entity.

The testing principle at stake with de-recognition or otherwise of receivables is whether, under the factoring arrangement, the risks and rewards of ownership pass from the trading company that is, Mutale Ltd in accordance with IFRS 9. The principal risk with regard to receivables is the risk of bad debt. In the case of nonrecourse (without) factoring arrangements, the entity transfers the risk of bad debt to the factor and hence the arrangement represents sales of the receivable. On the other hand, for a (with) recourse factoring arrangement, the entity retains the risk of losses of receivables or bad debt.

The K360,000 has been received as a one-off, non-refundable sum in the first arrangement. This is factoring without recourse for bad debts. The risk of bad debt has clearly passed from Mutale Ltd to the factoring agency, the Commerce Bank Ltd. Accordingly, Mutale Ltd should derecognize the receivable and there will be an expense of K40,000 recognized. No liability will be recognized.

In the second arrangement, the K140,000 is simply a payment on account. More cash may be received by Mutale Ltd, meaning that Mutale Ltd retains an element of reward. The monies received are refundable in the event of default and as such, represent an obligation.

This means that the risk of slow payment and bad debt remains with Mutale Ltd and not the factoring agency, the Commerce Bank, who is liable to repay the monies so far received. As a result, despite the passage of legal title, the asset (i.e. receivable) should remain recognized in the accounts of Mutale Ltd. In substance, Mutale Ltd has borrowed K140,000, and this loan should be recognized immediately. This will increase the gearing of Mutale Ltd.

(b) All assets, including goodwill and intangible assets, have to be tested for impairment at the end of each reporting period, if there are indicators of impairment. The main issues in relation to IAS 36: Impairment of Assets are as follows:

Changes in circumstances

Changes in circumstances between the date of the impairment test and the next reporting period end may give rise to impairment indicators. If so, more than one impairment test may be required in an annual period. Where an annual impairment test is required for goodwill and certain other intangible assets, IAS 36 allows the impairment test to be performed at any time during the period, provided it is performed at the same time every year.

Many entities test goodwill at an interim period in the year. In times of high uncertainty, goodwill may have to be tested for impairment at year end and at a subsequent interim reporting date as well, if indicators of impairment arise after the annual test has been performed. If an entity has to test for impairment at the end of the reporting date as well as at the scheduled annual date, it does not necessarily mean that the whole budget process needs to be redone, as top-down adjustments may be sufficient to assess any changes in the period since the latest goodwill impairment review.

Volatility in financial statements may indicate impairment. For example, drops in or increases in commodity prices may affect impairment indicators for energy and mining entities, and require those assets to be tested for impairment in the next interim financial statements.

Market capitalisation as a special impairment indicator

Market capitalisation is a powerful indicator, if it shows a lower figure than the book value of net assets. It inescapably suggests the market considers that the business is overvalued. However, the market may have taken account of factors other than the return which the entity is generating on its assets. A market capitalisation below book equity will not necessarily lead to an equivalent impairment loss. Entities should examine their cash generating units (CGUs) in these circumstances and may have to test goodwill for impairment. IAS 36 does not require a formal reconciliation between the market capitalisation of the entity, fair value less costs to sell (FVLCS), and value in use (VIU). However, entities need to be able to understand the reason for the shortfall.

Allocating and reallocating goodwill to cash generating unit (CGU)

Given the complexity, sensitivity and need for significant judgement, companies experience issues assessing goodwill for impairment. The identification of CGUs and the allocation of acquired goodwill is unique to each entity and requires significant judgement. This allocation process in itself determines the appropriate carrying amount to test and should be a reasonable and supportable method.

Acquired goodwill is allocated to each of the acquirer's CGUs, or to a group of CGUs, which are expected to benefit from the synergies of the combination. If CGUs are subsequently revised or operations disposed of, IAS 36 requires goodwill to be reallocated, based on 'relative values', to the units affected.

However, the standard does not expand on what is meant by 'relative value'. It does not mandate FVLCS as the basis, but it might mean that the entity has to carry out a valuation process on the part retained. There could be reasonable ways of estimating relative value by using an appropriate industry or business surrogate (for example, revenue, profits, industry KPIs).

(c) After restructuring, the present value of the pension liability in the first location is reduced to K8 million. Thus, there will be a curtailment in this location of (K10 – K8) million, i.e. K2 million. As regards the second location, there is a settlement and a curtailment as all liability will be extinguished by the payment of K 4 million. Therefore, there is a loss of K1.6 million (K2.4 million – K4 million). The changes to the pension scheme in both locations will both affect profit or loss as follows:

First location

| | | |
|---|---|---|
| Dr Pension obligation | K2 million | |
| Cr Retained earnings | | K2 million |

Second location

| | | |
|---|---|---|
| Dr Pension obligation | K2·4 million | |
| Dr Retained earnings | K1·6 million | |
| Cr Current liabilities | | K4 million |

Even though there has been no formal announcement of the restructuring, Tawanda Ltd has started implementing it and therefore it must be accounted for under IAS 37: Provisions, Contingent Liabilities and Contingent Assets. A provision of K6 million should also be made at the year end.

Statement of profit or loss (extract)

| | K million |
|---|---|
| First Location – Negative past service costs | 2 |
| First Location – Pension payment – loss suffered | (1.6) |
| Restructuring provision | (6) |

Statement of financial position extract

| | K million |
|---|---|
| Non –current liabilities: | |
| Reduction in pension obligation (2+ 2.4) | (4.4) |
| | |
| Current liabilities: | |
| Pension payment | 4 |
| Restructuring provision | 6 |

**SOLUTION FIVE**

**Financial performance (Profitability)**

Waka has increased revenue by almost 19% in the year and has managed to improve its gross margin from 25.4% to 27.7%. This is a significant improvement in performance and to increase margins in a period of expansion shows either good management of resources or an indication that the entity is benefiting from economies of scale. The operating profit shows just a minor increase in margin, due to increases in both administration and distribution expenses. It is possible that depreciation charges could have increased due to new investment and revaluations in the year or the expansion of activities resulting in a wider distribution network.

The profitability has been boosted by the investment income from the equity financial asset investments, with net profit margin increasing 13.7% from 9.5%. It should be noted that there was no income from the equity financial asset investments in 2022, possibly because they were acquired towards the end of that financial year or after dividends were paid and hence 2023 is possibly the first year to show this income. These investments have also generated valuation gains both in 2023 and 2022. This together with the significant income generated this year suggests that management has made a sound investment. It is also possible that if the entity was short of cash these assets could be easily sold to generate liquidity.

The company's ability to generate revenue using the capital employed as measured by the asset turnover ratio remained about the same over the two years.

Overall (as assessed by the ROCE), Waka's profitability has significantly increased.

**Financial position**

Gearing has remained about the same levels as measured y the debt to equity ratio. However, the interest cover ratio has halved over the period presenting a huge increase in financial risk. This could be this is due to the short term borrowings at the year end. The long term debt will have increased only by the amortised interest and is not due for redemption/conversion for another year. The revaluation in the year will also have reduced the gearing level. The interest cover has decreased from 32.0 to 16.4 and this is likely to be due to higher interest being charged on the overdraft. There is still adequate interest cover and the interest may come down in the future if the application for the longer term finance is approved.

Receivable days are largely unchanged from the previous year so it appears that expansion of activities has not compromised credit control. Payable days has increased by about 9 days, however this could well be the result from a significant order at the year-end as inventory days have also increased. Indeed payable days even in 2023 are relatively low and it would be beneficial to have payables and receivables days being closer. Waka waits almost double the time to receive its cash than it takes to pay its own suppliers which puts additional pressure on the cash flow.

This can also be seen from the quick ratio which has reduced from 4.1 to 1.8, although this would still be considered an acceptable liquidity ratio in most business scenarios. Inventories days have increased from 32 to 61 days at the year end. As already mentioned this could be due to a large inventory purchase prior to the year end in anticipation of increasing demand.
It is encouraging that the management has been proactive and has applied for longer term finance to fund the ongoing expansion, and if this is approved there is likely to be no issue with

cash management going forward. If interim reports were available, it would be worth reviewing the bank position to establish whether this is already the case.

**Conclusion**

Waka appears to be a well-managed, profitable business with opportunities for both an income stream through the regular receipt of dividends, and capital growth, as the share price and P/E ratio are increasing.

**Recommendation**

Based on the above analysis, it is highly recommended that you invest in Waka.

**APPENDIX TO THE FINANCIAL ANALYSIS – FINANCIAL RATIOS**

| RATIO | FORMULA | 2023 | 2022 |
|---|---|---|---|
| ROCE | PBITX100/CE | 164X100/783=20.9% | 96X100/635=15.%1 |
| Gross Profit Margin | GPX100/Revenue | 332X100/1200=27.7% | 257X100/1010=25.4% |
| Net Profit Margin | PBITX100/Revenue | 164X100/1200=13.7% | 96X100/1010=9.5% |
| Asset Turnover | Revenue/CE | 1200/783=1.5 times | 1010/635=1.6 times |
| Current Ratio | Current assets/Current Liabilities | 379/128=2.9 | 338/67=5.0 |
| Quick Ratio | Current assets less Inventory/Current Liabilities | 234/128=1.8 | 273/67=4.1 |
| Inventory days | Closing InventoryX365/COS | 145X365/868=61.0 days | 65X365/753=31.5 days |
| Receivables days | Closing ReceivablesX365/Sales | 234X365/1200=71.2 days | 201X365/1010=72.6 days |
| Payables Days | Closing PyablesX365/COS | 99X365/868=41.6 days | 67X365/753=32.5 days |
| Debt to Equity Ratio | NCLX100/Equity | 122X100/783=15.6% | 109X100/635=17.2% |
| Interest Cover | PBIT/Finance Costs | 164/10=16.4 times | 96/3=32 times |
| | | | |

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 14 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

10. Present value and Annuity tables are attached at the end of this paper.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

## SECTION A

**This question is compulsory and must be attempted.**

**QUESTION ONE – (COMPULSORY)**

Mutti Plc is a drug manufacturing company established in 2010. The company's shares were listed on the Lusaka Securities Exchange (LuSE) in 2015 and profitability has increased significantly in the past five (5) years. Management of Mutti Plc has remained the same during this period and there is a Board of Directors comprising largely of non-executive directors (NEDs).

Effective January 2017, the Remuneration Committee of the Board of Directors (BOD) recommended that the executive management should be paid annual bonuses subject to meeting set profitability targets agreed at the beginning of each year. The recommendation was approved by the Board of Directors and was implemented as recommended.

Moore Chartered Accountants have been the auditors of Mutti Plc from inception. The firm has four (4) partners and Gregory has been Engagement Partner for the audit of Mutti Plc throughout this period. The engagement letter by Moore Chartered Accountants has a clause disclaiming liability for any negligence in the performance of its work because the firm has taken appropriate insurance in accordance with the Accountants Act 2008. During this period, Moore Chartered Accountants issued unmodified opinions.

In 2018, based on the audited financial statements of Mutti Plc, Chanda bought shares in Mutti Plc. hoping to get annual dividends and capital gains on the sale of the shares. During the same year, Mutti Plc obtained a loan from Bank of Credit secured on the company's plant and equipment. The company paid dividends in the year 2018 and 2019. In the year 2020, the company did not declare any dividends citing a tight liquidity problem despite the profitability of the company. The share prices dropped significantly resulting in losses on sale of shares. This prompted a major institutional shareholder to demand that a forensic audit be performed by a different firm of accountants. Initial findings of the forensic audit suggested that there was rampant fraudulent financial reporting by the management of Mutti Plc. which resulted in the overstatement of the reported profits. The Board of Directors (BOD) took quick action and decided to terminate the contract of employment of the Chief Executive Officer (CEO) in order to facilitate for a thorough investigation. The Chief Executive Officer (CEO) took legal action for wrongful dismissal and is also seeking compensation for loss of office. The Board of Directors (BOD) of Mutti Plc terminated the contract for audit services with Moore Chartered Accountants.

Your firm of chartered accountants has been appointed auditor of the financial statements of Mutti Plc. on a contract of three (3) years effective 2020. The action by the Board of Directors (BOD) to terminate the contract of the Chief Executive Officer (CEO) and the alleged fraudulent financial reporting prompted interested parties to take legal action against Moore Chartered Accountants for professional negligence alleging that the auditors were negligent by issuing unmodified opinions when there was fraud committed by management which the auditors failed to detect.

Specifically:

1. Chanda sued for loss of the investment in shares.

2. Mutti Plc sued for professional negligence on the work performed by Moore Chartered Accountants and failure to detect the fraud.

3. Bank of credit sued for loss suffered on the loan to Mutti Plc based on audited financial statements by Moore Chartered Accountants. The bank relied on the audited financial statements in deciding to grant Mutti Plc a loan and also in the contract with Mutti Plc is a condition that the company should submit audited financial statements annually.

You are planning the audit of the financial statements of Mutti Plc and this is the first audit by your firm of a company in the pharmaceutical industry.

The following information was gathered during the process of gaining an understanding of the entity:

1. The agreement with the Bank of Credit for the loan provides that the current ratio and the quick (acid-test) ratio should not fall below the targets of 2:1 and 1.1 respectively.
2. Sales volumes for the month of December 2020 were significantly higher than the average monthly sales for the eleven (11) months ending November 2020.
3. There was a high incidence of credit notes raised during the month of January 2021; the main reason for the credit notes being goods returned or invoices posted to the wrong receivables' accounts.
4. There was a high incidence of inventory which was nearing expiry date. This is the first time in five (5) years that the company has large quantities of inventory. Inquiries within the company revealed that there is allegations that at the end of each accounting period, the packaging for drugs nearing expiry is changed with a view to falsely extend the expiry date.

**Required:**

(a) Advise each of the following on the intended litigation against Moore Chartered Accountants:

(i) Chanda (4 marks)
(ii) Mutti Plc (5 marks)
(iii) Bank of Credit. (4 marks)

(b) Explain four (4) steps that Moore Chartered Accountants can take to minimize the danger of being sued for professional negligence. 4 marks)

(c) (i) Explain the meaning of analytical procedures in auditing. (3 marks)

(ii) Describe the use of analytical procedures at the three (3) stages of auditing the financial statements of Mutti Plc. (6 marks)

(d) Identify and explain five (5) audit risks in the audit of the financial statements of Mutti Plc. (10 marks)

(e) Describe the action that should be taken by your firm on account of changing the expiry dates on expired drugs by Mutti Plc. (4 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any THREE (3) questions.**

**<u>QUESTION TWO</u>**

You are an Audit Manager in Mweshi & Associates Chartered Accountants. The audit of the financial statements of Mopani Ltd for the year ended 31 December 2022 is coming to an end. You are reviewing the working papers and the Engagement Partner has requested you to recommend a suitable audit opinion based on evidence obtained. The following information is extracted from the working papers:

Management of Mopani Ltd carried out an assessment regarding the company's ability to continue as a going concern. During the performance of substantive tests, the auditors concluded that there was material uncertainty with regards to the liquidity of the company. The company relied on short term bank overdrafts for operations in the past one (1) year. This concern was discussed with management who felt that despite the deteriorating liquidity position of the company, it is a going concern. You agreed with management that relevant disclosures should be made in the financial statements regarding the material uncertainty and that the financial statements should be prepared on the basis that the company is a going concern. Note one (1) of the financial statements adequately explains the material uncertainty.

During the audit, a number of matters were communicated to management and those charged with governance in accordance with ISA 260 (Revised) *Communication with those charged with governance*. All the matters communicated were resolved with management and the Audit Senior concluded that none of these matters consisted of Key Audit Matters.

The summary of uncorrected misstatements showed an amount of K450,000 as uncorrected. This resulted in the profit for the year being overstated by the same amount. Management declined the request to make corrections to the financial statements. The profit before tax per draft financial statements is K2.0 million and the total assets amount to K11.5 million.

There is an outstanding legal case against the company at the period end. The company was sued for wrongful dismissal by one (1) of the directors and a provision of K1.2 million was made in the financial statements. During the inventory count, it was observed that inventory worth K700,000 was nearing expiry. Management is of the view that the inventory is saleable and will be sold within the next two (2) months in view of the increase in demand of the said products during the festive season. Management made a 10% provision for obsolescence.

**Required:**

(a) (i) Explain the audit risk with regards to subsequent events in the audit of the financial statements of Mopani Ltd. (2 marks)

(ii) Describe the audit work that should have been done regarding the subsequent events in the audit of the financial statements of Mopani Ltd. (6 marks)

(b) Suggest, giving reasons, a suitable audit opinion that should be given in the audit of the financial statements of Mopani Ltd. (3 marks)

(c) Draft a suitable extract audit report, according to relevant auditing standards, with an addressee and elements of the report using the information in the scenario. (9 marks)

**[Total: 20 Marks]**

## QUESTION THREE

You work for the Zambia Institute of Chartered Accountants (ZiCA) in the Practice Review Department which is responsible for monitoring practicing accountants.

You have been assigned to carry out inspections of selected audit firms in accordance with the Zambia Institute of Chartered Accountant's mandate. This is towards the end of the year 2022 and the following information relates to the operations of Sherry & Associates Chartered Accountants.

You made prior arrangements for the visit and the following information was established during the visit.

Sherry & Associates is a practice with five (5) partners, one (1) of whom is the Managing Partner. On arrival at Sherry & Associates Chartered Accountants you were received by the Managing Partner who ushered you into his office. He took you around to meet the other four (4) partners and you observed that the only display in the office of the Managing Partner is the organisation chart showing the structure of the firm and pictures of all the partners.

Sherry & Associates Chartered Accountants has a client base of over twenty (20) medium size clients. This is a significant drop in clients compared to the previous five (5) years where the firm had on average a client base of forty (40). The firm was concerned about the drop in clients and in the year under review adopted a strategy to get new clients. The firm is specialized in auditing clients in the retail business and the drop in clients is attributed to government's decision to waive the requirement for audited financial statements when submitting tax returns for businesses with an annual turnover of less than K1.5 million.

You requested Sherry & Associates Chartered Accountants to provide you with details of the firm's policies on acceptance and continuation of client relationship. You established that in the year under review, the firm was engaged by Luwingu Ltd to be its auditors. Luwingu Ltd is a company that is in the food manufacturing industry. You established that its previous auditors did not seek re-election when their term ended. There is no evidence that Sherry & Associates Chartered Accountants communicated to the previous auditors before accepting nomination. When you inquired on why this was not done, you were told permission was denied by Luwingu Ltd for the firm to communicate with the outgoing auditors and the firm did not want to lose this client if it insisted on the communication with the previous auditors. You further established that the fee that the firm agreed with Luwingu Ltd management was far less than that of the former auditors and fees charged to similar companies in this industry.

You are concerned about the quality of work that is performed by the firm. You were informed that each Engagement Partner is responsible for all aspects of quality on all the audits under their supervision. A review of previous audit working papers for a retail listed company shows no evidence of any peer reviews having been done of the audit work performed. Your discussions with the partners in the firm show that none of the partners have ever been involved in reviews of working papers for audits that they have not been involved in.

**Required:**

(a) Discuss the ethical matters that should have been considered in accepting the appointment as auditor of Luwingu Ltd and explain how they could have been resolved. (4 marks)

(b) (i) Comment on the appointment of Sherry & Associates Chartered Accountants as auditor of Luwingu Ltd. (2 marks)

(ii) Suggest suitable action that should have been taken by Sherry & Associates Chartered Accountants to validate their appointment in line with ethical guidance. (4 marks)

(c) Explain the responsibilities for quality at the firm and individual audit levels in Sherry & Associates Chartered Accountants. (4 marks)

(d) Describe the matters that you will consider in confirming that Sherry & Associates Chartered Accountants complies with the relevant quality control auditing standards with regards the acceptance and continuance of client relationships. (6 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

(a) Purple Ltd is a company that is in the hospitality industry. It sells holiday packages to individuals and corporate customers. Purple Ltd prepares annual financial statements. The owners do not wish to have their financial statements audited by statutory auditors. They are happy to have a review of the financial statements done instead of an audit because this is cheaper than undertaking an audit.

**Required:**

(i) Explain why a review may cost Purple Ltd less than the cost of an audit. (2 marks)

**(ii)** Describe the main features of a review engagement that distinguishes it from an audit. (6 marks)

(b) Bwalya & Associates Chartered Accountants are auditors of Limpopo Plc for the past five (5) years and during this period the company was using a manual accounting system.

Due to the size of Limpopo Plc and the large number of transactions and balances in the financial statements, the audit of the financial statements of Limpopo Plc comprised an audit team of seven (7). The firm uses statistical sampling in the audit of the financial statements. The Engagement Partner is concerned that an inappropriate audit opinion may be reached as a result of using sampling which could result in the firm being sued for professional negligence. Currently, all the sample extraction and testing are done manually.

In the year ended 31 December 2022, Limpopo Plc acquired an accounting package and successfully migrated from manual systems to a computer system. Arising from this, the

Board of Directors (BOD) of Limpopo Plc asked management to negotiate lower fees with the auditors in view of the fact that it should be easier and cheaper to obtain sufficient appropriate evidence. Bwalya & Associates Chartered Accountants has been under pressure from many clients to reduce audit fees and is worried that if it does not do so, the firm may lose a significant number of clients which will result in loss of revenue.

The demands for fee reductions from clients have come at a time when the firm is considering ways in which quality audits can be performed at lower costs and hence being able to pass on a reduction in cost to clients. The Managing Partner of Bwalya & Associates Chartered Accountants recently attended a continuous professional development (CPD) workshop organized by the Zambia Institute of Chartered Accountants (ZiCA) at which matters relating to audit costs were discussed. The following matters were discussed and recommended for audit firms to implement:

1. Use of Computer Assisted Audit Techniques (CAATs) will increase audit quality and reduce audit costs. This can make audit firms more competitive.
2. The use of big data and data analytics has significant impacts on how audits can be conducted and has on impact on sampling risk and audit costs.

Towards the end of the audit of the financial statements of Limpopo Plc, two (2) experienced Audit Assistants resigned leaving less experienced staff to perform most of the substantive audit procedures.

**Required:**

(i) Describe sampling and non-sampling risks in the audit of the financial statements of Limpopo Plc. (4 marks)

(ii) Describe the implications and use of big data and data analytics to the external auditor. (4 marks)

(iii) Explain how Computer Assisted Audit Techniques (CAATs) can reduce sampling risk and give three (3) ways in which they can be used in the audit of the financial statements of Limpopo Plc. (4 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

(a) You are the Audit Senior on the audit of the financial statements of Arusha Co for the year ended 31 December 2022. During the year, the company undertook a fair value exercise for some properties; plant & equipment and the results of the exercise have been incorporated in the figures in the financial statements.

**Required:**

(i) Discuss the audit risks with regards to the tangible non-current assets measured at fair value in the financial statements of Arusha Co. (6 marks)

(ii) Describe four (4) audit procedures that should be performed on non-current assets held at fair value. (4 marks)

(b) The audit of the financial statements of Cliff Plc is nearing completion. You are the Audit Manager on the audit and the Audit Senior has passed on the current audit working paper files to you for review.

Management prepared the final draft financial statements with all the figures agreeing with the figures in the audit working papers. Your review revealed that there is a related party with whom Cliff Plc deals with in the purchases of raw materials. You establish that contrary to the applicable financial reporting framework, there are no disclosures of related parties and related party transactions in the draft financial statements.

In addition, the document containing the financial statements of Cliff Plc contain the following:

1. The Chairman's Report with an overview of the performance of the company.
2. The Report of the Directors.
3. A ten (10) year summary of performance ratios.
4. A general description of the business environment and future outlook.

After performing the procedures required by the relevant auditing standard on the above matters, you conclude that an unmodified opinion is appropriate.

**Required:**

(i) Describe the action that should be taken in view of the non-disclosure of the related party and related party transactions in the financial statements. (2 marks)

(ii) Explain four (4) reasons why auditors cannot detect all related party transactions in a client company. (4 marks)

(iii) Explain the information that should be included in the audit report regarding the information in the document containing the financial statements. (4 marks)

**[Total: 20 Marks]**

**END OF PAPER**

# CA 3. ADVANCED AUDIT AND ASSURANCE SUGGESTED SOLUTIONS

## SOLUTION ONE

(a) **Advice on intended litigation:**

In order to succeed in suing the auditors for professional negligence, the litigant must prove the following to the court:

- That there was a duty of care owed by the auditor to the litigant.
- There was a breach of the duty of care by the auditor
- The litigant suffered loss as a result of the breach of the duty of care by the auditor.

The following guidance is given in each of the three situations below:

(i) **Chanda**

Chanda bought shares in Mutti Plc based on audited financial statements audited by Moore Chartered Accountants. The auditors issued unmodified audit opinions in the years it has been auditor of Mutti Plc.

The argument by Chanda is that he has suffered loss in the share value of his shares on account of fraudulent financial reporting which the auditors failed to detect.

Duty of care:

According to the ruling in Caparo v Dickman, the auditors do not owe a duty of care to a third party who relies on audited financial statements to buy shares in a company.

The following is the position:

- Chanda will need to prove to the court that the auditors owed him a duty of care.
- Chanda should prove that the auditors were negligent and
- He must prove that he suffered loss as a result of the negligence of the auditors.

**Advice:**

It is much more difficult for Chanda to succeed in suing Moore Chartered Accountants because he will need to prove all three criteria.

**Mutti Plc**

Mutti Plc was the audit client of Moore Chartered Accountants and there was a contract between the auditors and the client. The general rule is that auditors owe a duty of care to the audit client and the company means all shareholders together. This is the case despite the express terms of the contract. The clause in the engagement letter disclaiming liability is not valid.

The following is the position:

- The company does not need to prove a duty of care since this is automatically assumed in this the case.

- The company will require to prove that there was a breach of the duty of care and
- Prove that the company suffered loss as a result of the breach of the duty of care.

**Advice:**
It is much easier for Mutti Plc. to succeed in litigation against the auditors because the first criteria need not be proved but the company need to prove the other two.

(ii) **Bank of Credit**
The bank intends to take legal action against the auditors because of the loss of the loan granted to Mutti Plc which was given based on the audited financial statements by Moore Chartered Accountants.
Generally, banks are excluded from the decision in Caparo vs. Dickman.

Banks normally include a clause in the agreement with their customers that they will require audited financial statements to be submitted to them. Auditors are expected to know this and therefore, banks do create a 'relationship' with the auditors to establish a duty of care.

The position is as follows:
- Moore Chartered Accountants have created a relationship and owe a duty of care
- Bank of Credit should prove that there was a breach of duty by the auditors.
- Bank of Credit should prove it suffered loss as a result of the negligence of Moore Chartered Accountants.

**Advice:**
The bank should go ahead and sue and the duty of care exists but the bank will have to prove the other two criteria.

(b) **Steps to mitigate the risk of being sued for professional negligence:**
1. Agreements with clients should be clear and precise and in writing clearly explaining matters to be excluded.
2. The audit work should be adequately planned and relevant internal control systems should be ascertained, evaluated and tested. Work should be reviewed by senior members of the audit team to ensure quality control of the audit.
3. Any queries during the audit should be recorded, resolved and documented.
4. Matters observed during the audit that require management's attention should be reported by way of a management letter.
5. Members of the firm should have the necessary skills and competences to undertake audits and be familiar with relevant auditing standards.
6. Appropriate insurance should be taken by the firm to mitigate any liability arising from litigation for professional negligence.

(c) (i) **Meaning of analytical procedures:**
Analytical procedures generally comprise ratio analysis and comparisons of items to make meaningful interpretation of the results.

They consist of comparing items such as the current year information with the prior year information and analyzing relationships between say receivables and credit sales.

ISA 520 *Analytical Procedures* gives guidance on the use of analytical procedures. The standard requires the use of analytical procedures at the planning and review stages of the audit.

(ii) **Description of the use of analytical procedures in an audit:**
Analytical procedures are used during all the **three stages** of the audit of the financial statements of Mutti Plc as follows:

**Planning stage:**
During the planning stage of the audit when the auditors are assessing the risk of material misstatements according to ISA 315 (Revised) *Identifying and assessing the risks of material misstatements through understanding the entity and its environment,* one of the methods that is used in gaining an understanding is ***analytical procedures***. Through performing analytical procedures, the auditors will gain an insight of the client business in comparison with other entities in a similar industry or industry averages. It is a requirement of the ISA that analytical procedures should be used at this stage of the audit.

Significant variations between calculated ratios and comparisons could be indicative of the areas where there is a risk of material misstatement to which the auditors should respond.

***Substantive audit stage:***
Substantive procedures are performed by the auditors in order to obtain evidence on whether or not the figures in the financial statements are materially misstated. Substantive procedures are of two types namely tests of detail and substantive analytical procedures. Substantive analytical procedures are an efficient way of verifying figures in the financial statements and can be used in conjunction with tests of detail. The use of analytical procedures at this stage of the audit is optional and not required by auditing standards.

For example, in obtaining evidence on depreciation for the year, the auditors can use the opening balances and the rates of depreciation to calculate the current year depreciation and compare this with the depreciation charge in the statement of profit or loss.

**Review stage:**
Analytical procedures are used at this stage of the audit to assist the auditor when forming an overall conclusion as to whether the financial statements are consistent with the auditor’s understanding of the entity. The use of analytical procedures at the review stage of the audit is required by auditing standards.

For example, the auditors can calculate ratios such a gross margin or return on investment (ROI) and compare the results with the industry gross margin or return on investment (ROI). If the variations are significant, investigations can be carried out before finalizing the audit.

(d) **Audit risks in the audit of the financial statements of Mutti Plc.:**

1. Highly regulated industry – non-compliance with laws & regulations
   Mutti Plc is in a highly regulated industry. There is a risk that the company will not comply with some laws and regulations which could result in the company being penalized and in the extreme case result in the operating license being withdrawn. This could have an impact on Mutti Plc's ability to continue as a going concern.
2. Bonus payment to management based on meeting targets:
   The decision to pay bonuses based on meeting set targets could cause management to use creative accounting in order to meet the targets set. Figures in the financial statements may be misstated as a result.
3. Loan secured on plant & equipment
   The bank loan is secured on the plant & equipment. With the poor liquidity position of Mutti Plc, the company may fail to repay the loan which may result in the bank enforcing the security. This can have consequences on Mutti Plc's ability to continue as a going concern.
4. Chief Executive Officer (CEO) legal case for wrongful dismissal:
   The legal case by the dismissed Chief Executive Officer (CEO) means that the Mutti Plc may be liable to pay damages and compensation for wrongful dismissal to him. This may result in provisions being misstated in the financial statements.
5. Adverse liquidity ratios:
   Adverse liquidity ratios may be an indication of a company that may not be a going concern. There is a risk that the financial statements may be prepared on the assumption that the company is a going concern and yet there is a material uncertainty with regards to the going concern of Mutti Plc. This has implications on the basis of preparing the financial statements of Mutti Plc.
6. Bank current ratio limit:
   The demand by the bank that the current ratio and quick (acid-test) ratio of Mutti Plc should not fall below set targets could result in fraudulent financial reporting in order to meet the bank requirement. This could result in the misstatement of figures in the financial statements.
7. Errors in invoicing receivables and sales returns:
   Invoicing error could result in disagreements with customers which could cause the financial statements to be misstated.
8. Obsolete inventory:
   Obsolete inventory should be written off in the financial statements. The extent of such inventory could result in inventory being misstated in the financial statements.
9. Sales for December higher than average sales during the year.
   The high sales in December and subsequent increase in credit notes raised in the subsequent period is indicative of creative accounting by management. Sales revenue is likely to be overstated so as to meet set targets.

(e) **Action on changing of expiry dates on expired drugs:**

The action by Mutti Plc to change expiry dates on expired drugs is an illegal act. If the matter comes to the attention of the auditors, they must discuss this with management and those charged with governance and seek their views on this illegal act. The auditors should take reasonable steps to confirm the illegal action or dispel it if not confirmed.

The auditors are required to act in public interest regardless of the fact that they were engaged by Mutti Plc to offer assurance services.

There are exceptions to the general rule about confidentiality, one of which is that when a client is involved in illegal activities, the auditors should inform the relevant regulators concerning that act.

An act such as the one of changing expiry dates on expired drugs brings into question the integrity of management. The auditors may consider resigning from the engagement if the matter is considered serious and if necessary, seek legal advice.

## SOLUTION TWO

(a) (i) **Audit risk – subsequent events:**

The audit risk with regards to subsequent events is that management of Mopani Ltd may not account for subsequent events in accordance with the provisions of IAS 10 *Events after reporting period.*

The risk is that adjusting events after the period end may be treated as non-adjusting events or vice versa.

(ii) **Audit work on subsequent events in the audit of Mopani Ltd.:**

Legal case

- Inquire from management on how they determined the provision of K1.2 million
- Enquire of the in-house legal advisor on the likely outcome of the case and adequacy of the provision made by management in the financial statements.
- Determine whether the legal case was concluded and determined after the period end but before signing the audit report and ensure adjustments to the provision were made as necessary.
- Obtain written representations from management on their assessment and adequacy of the provision of K1.2million

Inventory count

- Attendance during inventory count and ensuring inventory nearing expiry was separately identified.
- Review the valuation of the inventory and ensure it was valued at the lower of cost and net realizable value.
- If the inventory is sold post year, review sales value and if lower than cost, confirm inventory valuation at period end has been adjusted.
- Inquire of management basis of making a provision of 10%.

(b) **Suggested audit opinion:**

Uncorrected misstatements at the end of the audit of the financial statements of Mopani Ltd are 22.5% of profit and 4% of total assets. The uncorrected misstatements are material with regards to both the statement of profit or loss and statement of financial position of Mopani Ltd.

The refusal by management to adjust the financial statements on account of the uncorrected misstatements will result in a modification of the opinion. Misstatements of the profit figure is likely to be pervasive to the financial statements. The appropriate audit opinion in view of the materiality and pervasiveness of the amount on the financial statements is an adverse opinion.

(c) **Extract of audit report:**

**INDEPENDENT AUDITOR'S REPORT**

**To:** The Shareholders of Mopani Ltd

**Qualified/adverse opinion**
In our opinion, the accompanying financial statements **do not give** a true and fair view of as at 31 December 2022.

**Basis for qualified/adverse opinion**
The adverse opinion above was arrived at after considering management's refusal to adjust the financial statements on account of material uncorrected misstatements amounting to K450,000.

**Material Uncertainty Related to Going Concern**
We draw your attention to note 1 of the financial statements which indicates that the company has serious liquidity problems. This indicates that a material uncertainty exists that may cast significant doubt on the company ability to continue as a going concern. Our opinion is not modified in respect of this matter.

**Signed/dated**

(N.B. A qualified or adverse opinion will be appropriate depending on the argument regarding the matter of concern considering materiality and pervasiveness)

## SOLUTION THREE

(a) **Ethical procedures before accepting appointment as auditors of Luwingu Ltd:**

1. The firm should have considered the fact that Luwingu Ltd is in an industry that it has no previous auditing experience. Consideration should have been made on whether the firm is technically qualified to undertake the audit and whether it has the resources in terms of technical expertise before accepting appointment.

2. The integrity of management of Luwingu Ltd should have been considered. The fact that management refused the firm to communicate with the previous auditors brings into question the integrity of management. The firm should have declined appointment on account of management of Luwingu Ltd lacking integrity.

(b) (i) Sherry & Associates Chartered Accountants should have declined appointment as auditors of Luwingu Ltd on account that permission to communicate with the previous auditors was denied by management. The acceptance of the appointment without communicating with the previous auditors is contrary to professional requirements when accepting audit clients.

(ii) **Action that should have been taken by Sherry & Associates Chartered Accountants:**
It is a professional requirement that before accepting appointment as auditors, the nominated auditors should communicate with the outgoing auditors to find out if there are any reasons professional or otherwise why they should not accept appointment.

When the management of Luwingu Ltd. denied Sherry & Associates Chartered Accountants to communicate with the outgoing auditors, the firm should have **declined appointment** as auditors of Luwingu Ltd.

(c) **Quality control in Sherry & Associates Chartered Accountants**

**Quality control at firm level:**
There is quality control at the firm level in accordance with ISQC 1 *Quality control for firms that perform audits and reviews of financial statements and other assurance and related services engagements.* The standard requires that the firm should establish and maintain systems of quality control. This could be achieved by giving responsibility for quality to a senior person who understands the provisions of ISQC 1. In the case of Sherry & Associates Chartered Accountants, one (1) of the partners could be appointed quality champion in addition to his/her other duties.

**Quality control at individual audit level:**
This is guided by provisions of ISA 220 *Quality control for an audit of financial statements.* The engagement partner is responsible for all aspects of quality control at the individual audit level. Each of the partners in Sherry & Associates Chartered Accountants will be responsible for quality control of the audits under their control.

(d) **Matters to consider in accepting & continuous of client relationships:**

Sherry & Associates Chartered Accountants should have policies and procedures in place for acceptance and continuance of client relationships. These policies should cover the following three areas

- Whether Sherry & Associates Chartered Accountants' staff are competent to perform the engagement and have the capabilities and resources to do so.
- That the firm will comply with relevant ethical requirements and that there are no ethical dilemmas that can prevent them from accepting or continuing with a client relationship.
- That the firm has considered and evaluated the integrity of management/client and that there is no information to suggest that the client lacks integrity.

## SOLUTION FOUR

(a) (i) **Why a review cheaper than an audit:**

In a review engagement, the auditors do not perform as many tests of transactions and balances as they do in an audit of financial statements.

The main methods of obtaining evidence in a review are inquires and analytical procedures.

(ii) **Main features of a review engagement compared to an audit:**

- Reviews result in a limited assurance while audits are reasonable assurance engagements.
- The procedures in a review engagement do not provide all the evidence that would be required in an audit.
- The conclusion is in negative form with the auditors stating that nothing has come to the attention of the auditors that financial statements have not been prepared in accordance with the relevant financial reporting framework.
- Reviews seek a lower level of assurance compared to that of an audit.

(b) (i) **Sampling and non-sampling risks:**

**Sampling risk** is the risk that the conclusion reached by auditors will be different from the conclusions that would have been reached had the whole population been subjected to the same audit procedures.

The auditors of Limpopo Plc use statistical sampling in selecting items for testing and so the conclusions reached are subject to sampling risk.

**Non-sampling risk** – This is the risk that the auditors may reach an erroneous conclusion for other reasons not related to sampling.

For example, the auditors are not competent or they use inappropriate audit procedures. In the case at hand, two (2) experienced audit team members resigned whilst the audit was in progress. This could result in an inappropriate opinion being issued in view of the increased detection risk which is not related to sampling.

(ii) Implication of use of big data & data analytics on audits:

- Through the use of big data and data analytics auditors may be able to examine 100% of transactions rather than testing samples from the population.
- There may be no need for the auditor to be concerned about the effectiveness of internal controls and relying on them in deciding on the nature of further audit procedures to be conducted. This is because auditors may test the whole population resulting in no need to worry about controls.
- The cost of audits is likely to drop through the use of big data and data analytics.

- Through testing all transactions, sampling risk will be eliminated through the testing of 100% of transactions because of the benefits of big data and data analytics.

(iii) **The use of CAATs improving quality of audits:**

By using computer assisted audit techniques (CAATs) the auditors can test more transactions than if performed manually thereby reducing sampling risk.

CAATs can be used in the audit of the financial statements of Limpopo Plc. as follows:

- In the extraction of sample items to be subjected to tests of controls and substantive tests.
- CAATs could be used to test controls in a computer system and also confirming that the system is processing data the way it is supposed to and this could be done through the use of test data.
- CAATs could be used to perform tasks that would have otherwise been performed manually. For example, checking the accuracy of invoices or missing documents in a series could easily be done using audit software.

**SOLUTION FIVE**

(a) (i) **Audit risk regarding tangible none current assets measured at fair value:**

The audit risk regarding amounts held at fair value is that the determination of the amounts may not be done in accordance with provisions of IFRS 13 *Fair value measurement.* This may result in the misstatement of the amounts carried at fair value and if material may result in a misstatement of the financial statements.

Risk relating to fair values is high because of the following:

1. Fair values are accounting estimates and involve judgment
2. Fair value determination may require the use of complex models such as discounting of cash flows and there is a risk that these may be misapplied.
3. There are assumptions used in estimating fair values and there is a risk of management bias in making these assumptions.
4. Fair value exercise is not regularly carried out and usually done outside normal company internal controls. There are likely to be no controls in existence to monitor determination of fair values.

(ii) **Audit procedures on non-current assets held at fair value:**

- Obtain the list of property, plant and equipment that is stated at fair value.
- Obtain from management the basis for determining the fair values.
- If there is an open market for the assets in question, confirm the fair value to the current market price.
- Where the determination of fair values is dependent on future action by management, review the reasonableness of the assumptions made.
- Obtain written representations from management confirming that the fair values included are reasonable and represent the best estimate by management.

(b) (i) **Action in case of non-disclosure of related party & related party transactions:**

- Discuss the matter with management and request management to disclose in the financial statements the related party and the amount transaction with the related party.
- If management declines the request to make the necessary disclosures, consider the impact of non-disclosure on the audit opinion.
- Obtain written representations from management to confirm that there are no more related parties and related party transactions that have not been disclosed to the auditors.
- Re-evaluate the integrity of management with regards to representations previously made in obtaining evidence.

(ii) **Factors that will make it difficult for auditor to detect related party transactions:**

- There are cases where related party transactions take place at no charge and auditors may not pick them using conventional auditing methods.

- Related party transactions may not be obvious and self-evident to the auditors.
- The related party may be an entity that the auditors cannot reasonably be expected to know is a related party – especially where the corporate structure of the company is complex.
- Management may take steps to conceal the related party relationship or the full terms of the transactions or that the transaction is with a related party.

(iii) **Information in audit report in relation to other information:**

The standard unmodified audit report has an element in which the auditor's report on other information contained in the documents containing financial statements.

In the audit of the financial statements of Cliff Plc the auditors have no issues of concern regarding other information and will issue an unmodified opinion.

The Other information paragraph in the auditor's report will contain the following:

- The fact that management of Cliff Plc has primary responsibility of other information contained in the document containing financial statements.
- The fact that the audit opinion on the financial statements does not cover the other information contained as stated in the question.
- The responsibilities of the auditor with regards to other information – to read the other information & consider whether the other information is inconsistent with the financial statements.
- The fact that if there are any inconsistences, these will be reported on in this paragraph by the auditors.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.4: ADVANCED TAXATION

THURSDAY 14 SEPTEMBER 2023

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:
   Section A: One (1) **Compulsory** scenario question.
   Section B: Four (4) Optional Questions. Attempt any Three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

10. A Taxation Table is provided from page 2 to page 6 of the question paper.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

## Taxation Table
## Income Tax

**Standard personal income tax rates**

| Income band | Taxable amount | Rate |
|---|---|---|
| K0.01 to K57,600 | first K57,600 | 0% |
| K57,601 to K81,600 | next K24,000 | 20% |
| K81,601 to K106,800 | next K25,200 | 30% |
| Over K106,800 | | 37.5% |

**Income from farming for individuals**

| | | |
|---|---|---|
| K0.01 to K57,600 | first K57,600 | 0% |
| Over K57,600 | | 10% |

**Company income tax rates**

| | |
|---|---|
| On income from manufacturing and other | 30% |
| On income from farming | 10% |
| On income from mineral processing | 30% |
| On income from mining operations | 30% |
| On income of Banks and other Financial Institutions | 30% |

## Mineral Royalty

**Mineral Royalty on Copper**

| Norm price range | Incremental value | Mineral Royalty rate |
|---|---|---|
| Less than US$4,000 | Less than $4,000 | 4.0% of norm value |
| From US$4,000 but less than US$5,000 | Next $1,000 | 6.5% of norm value |
| From US$5,000 but less than US$7,000 | Next $2,000 | 8.5% of norm value |
| US$7,000 and above | Over $7,000 | 10% of norm value |

**Mineral Royalty on other minerals**

| Type of mineral | Mineral Royalty Rate |
|---|---|
| Cobalt and Vanadium | 8% of norm value |
| Base Metals (Other than Copper, Cobalt and Vanadium) | 5% of norm value |
| Energy and Industrial Minerals | 5% of gross value |
| Gemstones | 6% of gross value |
| Precious Metals | 6% of norm value |

## Capital Allowances


## Capital Allowances


**Implements, plant and machinery and commercial vehicles:**

| | | |
|---|---|---|
| Wear and Tear Allowance – | Standard wear and tear allowance | 25% |
| | Used in manufacturing and leasing | 50% |
| | Used in farming and agro-processing | 100% |
| | Used in mining operations | 20% |

**Non- commercial vehicles**

| | |
|---|---|
| Wear and Tear Allowance | 20% |

**Industrial Buildings:**

| | |
|---|---|
| Wear and Tear Allowance | 5% |

| | |
|---|---|
| Initial Allowance | 10% |
| Investment Allowance | 10% |

**Low Cost Housing** **(Cost up to K100,000)**

| | |
|---|---|
| Wear and Tear Allowance | 10% |
| Initial Allowance | 10% |

**Commercial Buildings**

| | |
|---|---|
| Wear and Tear Allowance | 2% |

**Farming Allowances**

| | |
|---|---|
| Development Allowance | 10% |
| Farm Works Allowance | 100% |
| Farm Improvement Allowance | 100% |

## Presumptive Taxes

**Turnover Tax**
**Annual Turnover**

| | |
|---|---|
| K0.01 to K12,000 | 0% |
| K12,001 to K800,000 | 4% |

**Rental income Tax**

| | |
|---|---|
| K0.01 to K12,000 | 0% |
| K12,001 to K800,000 | 4% |
| On income above K800,000 | 12.5% |

**Presumptive tax for transporters**

| Seating capacity | Tax per annum | Tax per quarter |
|---|---|---|
| | K | K |
| Less than 12 passengers and taxis | 1,080 | 270 |
| From 12 to 17 passengers | 2,160 | 540 |
| From 18 to 21 passengers | 4,320 | 1,080 |
| From 22 to 35 passengers | 6,480 | 1,620 |
| From 36 to 49 passengers | 8,640 | 2,160 |
| From 50 to 63 passengers | 10,800 | 2,700 |
| From 64 passengers and over | 12,960 | 3,240 |

**Property transfer tax**

| | |
|---|---|
| Rate of tax on realised value of land, buildings and shares | 5% |
| Rate on realised value of intellectual property | 5% |
| Rate on realised value of mining right for an exploration licence | 5% |
| Rate of tax on realised value of a mining right for a mining licence | 10% |
| Rate of tax on realised value on a mineral processing licence | 10% |

### Value Added Tax

| | |
|---|---|
| Registration threshold | K800,000 |
| Standard Value Added Tax Rate (on VAT exclusive turnover) | 16% |

### Customs and Excise duties on used motor vehicles

| | Aged 2 to 5 years | | Aged 5 years and over | |
|---|---|---|---|---|
| **Motor vehicles for the transport of ten or more persons, including the driver** | **Customs duty K** | **Excise duty K** | **Customs duty K** | **Excise duty K** |
| Sitting capacity of 10 but not exceeding 14 persons including the driver | 17,778 | 22,223 | 8,889 | 11,112 |
| Sitting capacity exceeding 14 but not exceeding 32 persons | 38,924 | 0 | 13,840 | 0 |
| Sitting capacity of 33 but not exceeding 44 persons | 86,497 | 0 | 19,462 | 0 |
| Sitting capacity exceeding 44 persons | 108,121 | 0 | 43,248 | 0 |

| | Aged 2 to 5 years | | Aged 5 years and over | |
|---|---|---|---|---|
| **Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars** | **Customs duty** | **Excise duty** | **Customs duty** | **Excise duty** |
| | **K** | **K** | **K** | **K** |
| **Sedans** | | | | |
| cylinder capacity not exceeding 1000 cc | 12,490 | 10,824 | 7,136 | 6,185 |
| Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc | 16,058 | 13,917 | 8,564 | 7,422 |
| Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc | 16,545 | 21,508 | 8,423 | 10,950 |
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc | 18,049 | 23,463 | 10,528 | 13,687 |
| Cylinder capacity exceeding 3000 cc | 22,561 | 29,329 | 12,032 | 15,642 |
| **Hatchbacks** | | | | |
| cylinder capacity not exceeding 1000 cc | 10,705 | 9,278 | 7,136 | 6,185 |
| Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc | 14,274 | 12,371 | 8,564 | 7,422 |
| Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc | 15,041 | 19,553 | 8,423 | 10,950 |
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc | 16,545 | 21,508 | 10,523 | 13,687 |
| Cylinder capacity exceeding 3000 cc | 19,553 | 25,419 | 12,032 | 15,642 |
| **Station wagons** | | | | |
| cylinder capacity not exceeding 2500 cc | 16,545 | 21,508 | 9,024 | 11,731 |
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc | 18,049 | 23,463 | 13,357 | 17,598 |
| Cylinder capacity exceeding 3000 cc | 22,561 | 29,329 | 18,049 | 23,463 |
| **SUVs** | | | | |
| Cylinder capacity not exceeding 2500 cc | 21,057 | 27,374 | 9,024 | 11,732 |
| Cylinder capacity exceeding 2500 cc but not | 24,065 | 31,284 | 13,357 | 17,598 |

| | | | | |
|---|---|---|---|---|
| exceeding 3000 cc | | | | |
| Cylinder capacity exceeding 3000 cc | 28,577 | 37,150 | 18,049 | 23,463 |
| | **Aged 2 to 5 years** | | **Aged 5 years and over** | |
| **Motor vehicles for the transport of goods -with compression-ignition internal combustion piston engine (diesel or semi-diesel):** | **Customs duty** | **Excise duty** | **Customs duty** | **Excise duty** |
| | **K** | **K** | **K** | **K** |
| **Single cab** | | | | |
| GVW exceeding 1.0 ton but not exceeding 1.5 tonnes | 21,926 | 9,501 | 8,770 | 3,801 |
| GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes | 26,311 | 11,402 | 15,348 | 6,651 |
| GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes | 30,697 | 13,302 | 17,541 | 7,601 |
| **Double cabs** | | | | |
| GVW exceeding 3 tonnes but not exceeding 5 tonnes | 30,697 | 13,302 | 24,119 | 10,452 |
| Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, **with spark ignition internal combustion piston engine** | 33,766 | 14,632 | 26,531 | 11,497 |
| **Panel Vans** | | | | |
| GVW not exceeding 1.0 ton | 13,353 | 5,786 | 7,630 | 3,061 |
| GVW exceeding 1.0 ton but not exceeding 1.5 tonnes | 15,348 | 6,651 | 8,770 | 3,801 |
| GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes | 17,541 | 7,601 | 15,348 | 6,651 |
| GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes | 21,926 | 9,501 | 17,541 | 7,601 |
| **Trucks** | | | | |
| GVW up to 2 tonnes | 13,907 | 10,662 | 6,413 | 4,916 |
| GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes | 15,453 | 11,847 | 7,726 | 5,923 |
| GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes | 24,724 | 18,955 | 9,272 | 7,108 |
| GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes | 30,905 | 23,694 | 11,744 | 9,004 |
| GVW exceeding 20 tonnes | 51,898 | 0 | 19,462 | 0 |
| GVW exceeding 20 tonnes, **with spark ignition internal combustion piston engine** | 37,086 | 28,432 | 13,907 | 10,662 |

**Surtax**

On all motor vehicles aged more than five (5) years from year of manufacture K2,000

**Customs and Excise on New Motor vehicles**
**Duty rates on:**

| | | |
|---|---|---|
| **1.** | **Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:** | |
| | **Customs Duty:** | |
| | Percentage of Value for Duty Purposes | 30% |
| | Minimum Specific Customs Duty | K6,000 |
| | **Excise Duty:** | |
| | Percentage of Value for Duty Purposes for Excise Duty Purposes | |
| | Cylinder capacity of 1500 cc and less | 20% |
| | Cylinder Capacity of more than 1500 cc | 30% |
| **2.** | **Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:** | |
| | **Customs Duty** | |
| | Percentage of Value for Duty Purposes | 15% |
| | Minimum specific Customs Duty | K6,000 |
| | **Excise Duty:** | |
| | Percentage of Value for Duty Purposes for Excise Duty Purposes | 10% |
| **3.** | **Buses/coaches for the transport of more than ten persons** | |
| | **Customs Duty:** | |
| | Percentage of Value for Duty Purposes | 15% |
| | Minimum Specific Customs Duty | K6,000 |
| | **Excise Duty:** | |
| | Percentage of Value for Duty Purposes for Excise Duty Purposes | |
| | Seating Capacity of 16 persons and less | 25% |
| | Seating Capacity of 16 persons and more | 0% |
| 4. | **Trucks/lorries with gross weight exceeding 20 tonnes** | |
| | **Customs Duty:** | |
| | Percentage of Value for Duty Purposes | 15% |
| | **Excise Duty:** | |
| | Percentage of Value for Duty Purposes for Excise Duty Purposes | 0% |

## SECTION A

**This question is compulsory and must be attempted.**

**<u>QUESTION ONE- COMPULSORY</u>**

**For the purposes of this question, you should assume that today's date is 20 December 2022**

You are employed in Tax practice. You have been provided with the following information relating to Elton Simasiku, who is seeking tax advice from your firm.

Simasiku has run a retail business for many years as a sole trader under the name Simasiku Enterprises. The annual turnover of the business has always exceeded K800,000. He has always prepared accounts to 30 June each year and he has always involved his wife Namasiku, in running the business, as an employee.

Simasiku wishes to incorporate the business and start running it as a private limited company, known as Siku Limited from 1 July 2023. The share capital of the company will be held by Simasiku and Namasiku in equal shares. Simasiku and Namasiku will run the company as full-time working directors, preparing accounts to 31 December each year. All assets held by the business at 30 June 2023, will all be transferred to Siku Limited. The results of the business in the tax year 2023, before and after incorporation are expected to be as follows:

**Year ended 30 June 2023**

The net profit as per accounts for the year ended 30 June 2023, is estimated to be K860,000. This net profit figure is before deducting payments to Simasiku and Namasiku and any NAPSA contributions. All the other expenses that will be incurred and deducted in arriving at the net profit figure of K860,000 are allowable expenses for taxation purposes. Simasiku is entitled to an annual salary of K312,000, and additionally draws an annual motoring allowance of K84,000. Namasiku's annual salary is K240,000 and she additionally draws an annual motoring allowance of K72,000.

The income tax values of assets held by the business qualifying for capital allowances at 1 July 2022, their original costs and their respective expected market values at 30 June 2023, are as follows:

| | Income Tax Values at 1 July 2022 | Original costs | Market values at 30 June 2023 |
|---|---|---|---|
| | K | | K |
| Ford Ranger double cab van | 240,000 | 600,000 | 200,000 |
| Isuzu single cab van | 375,000 | 500,000 | 250,000 |
| Fixtures and fittings | 55,000 | 110,000 | 30,000 |
| Shop buildings | 640,000 | 800,000 | 1,200,000 |

Simasiku has always used the Ford Ranger Double cab van (which has a cylinder capacity of 3,200cc) 25% for private purposes. The Isuzu single cab van (2,000cc) is used in the business as a delivery van, but Namasiku has always used the van 30% for private purposes.

**Six-month period ended 31 December 2023**

The net profit as per accounts for Siku Ltd for the six month period to 31 December 2023, are expected to be K1,480,000. This net profit figure is before any withdrawals of profits by Simasiku and Namasiku and NAPSA contributions.

After incorporating the business on 1 July 2023, Simasiku and Namasiku will maintain their entitlement to annual salaries of K312,000 and K240,000 respectively. Simasiku and Namasiku will additionally continue drawing annual motoring allowances of K84,000 and K72,000 respectively. Simasiku will continue using the Ford Ranger Double Cab 25% for private purposes and Namasiku will continue using the Isuzu single van 30% for private purposes.

NAPSA contributions payable should be taken to be 5% of the relevant earnings per annum and the earnings ceiling for the purposes of NAPSA contributions should be taken to be K322,080 per annum.

**Other information**

Simasiku would like to transfer title to property he recently purchased, into a trust on 1 January 2023, to be managed by trustees for the benefit of his only daughter, Imasiku, who is still a minor. The property is currently valued at K5,500,000 (comprising land valued at K1,500,000 and a block of residential flats valued at K4,000,000).

Alternatively, he can manage the property himself, and let it out on a commercial basis, from 1 January 2023, generating gross annual rental income of K1,650,000. He will draw an annual fee of K125,000 for managing the property. Annual expenses which will be incurred wholly and exclusively in relation to letting will include depreciation charges of K87,500, property insurance of K375,000, property security expenses of K300,000 and property maintenance expenses of K85,000. Any excess income will be accumulated for the benefit of his daughter.

If he gifts the property into a trust then, an annual fee of K125,000 will be payable to the trustees for managing the trust. Annual expenses which will be incurred wholly and exclusively in managing the trust will include depreciation charges of K87,500, property insurance of K375,000, property security expenses of K300,000 and property maintenance expenses of K85,000.

Simasiku would like to know whether from a taxation point of view, it will be more beneficial to gift the property into a trust for the benefit of his daughter, as opposed to managing the property himself.

**Required:**

(a) Advice Simasiku and Namasiku on how income generated from the business will be assessed to income tax in the tax year 2023. Your answer should also include:

(i) An explanation of the basis of assessment for the profits which will be generated from business in the year ended 30 June 2023, together with a computation of the final taxable profits for this period. (10 marks)

(ii) An explanation of the basis of assessment for the profits which will be generated by the business for the six-month period to 31 December 2023, after incorporation, together with a computation of the final company income tax payable by the company for the tax year 2023. (11½ marks)

(iii) A computation of the final income tax payable by Simasiku and Namasiku in the tax year 2023. (4½ marks)

(b) Assuming Simasiku gifts the property into a trust to be managed for the benefit of his daughter, Imasiku, on 1 January 2023:

(i) Advise him of any property transfer tax implications that will arise on the transfer of the property. (2 marks)

(ii) Advise him of the income tax implications and compute the amount of any income tax arising for the tax year 2023. (6 marks)

(c) Assuming Simasiku decides to manage the property himself and lets it out from 1 January 2023, advise him of the income tax implications and compute the amount of any tax arising in the tax year 2023. (4 marks)

(d) Based on your answers in parts (b) and (c) above, advise Simasiku whether it will be more beneficial from a taxation point of view, for him to transfer the property into a trust or whether he should manage the property himself. (2 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section. Attempt any THREE (3) questions.**

**QUESTION TWO**

You are employed in a firm of Chartered Accountants as a senior Tax Consultant. Your supervisor has presented you with the information relating to your client, CopperSave Bank Plc. The company made a profit before taxation of K34,400,900 for the year ended 31 December 2023. The profit figure was arrived at after taking into account the following:

(1) Other income credited to the accounts amounting to K500,000. This comprised dividends from shares held in Zambian companies of K70,000 (gross) and royalties of K430,000 (gross). Withholding tax had been deducted at source.

(2) Interest expenses of K22,000,000. This was made up of interest on subordinate debt amounting to K4,600,000 and interest paid to clients on deposit accounts of K17,400,000.

(3) Provision for loan losses amounting to K2,700,000. This was made up of loan losses written off amounting to K1,800,000, increase in general provision for loan losses amounting K2,300,000 and loan losses previously written off now recovered of K1,400,000.

(4) Non-interest expenses amounting to K46,300,000. This comprised the following:

(i) Donations to political parties of K848,000.

(ii) Directors' emoluments for the Managing Director and Finance Director amounting to K1,200,000 and K920,000 respectively. The two directors are accommodated in company owned houses for which they pay no rent.

(iii) Share option expenses of K1,230,000, which were incurred in respect of an equity settled share-based payments transaction in which the directors were granted share options. The amount shown of K1,230,000 represent the value of services accrued during the year ended 31 December 2023 in accordance with IFRS 2 – Share based payments transactions. The share options will be exercised on 30 November 2024.

(iv) Employee benefits expenses amounting to K3,000,000. This amount comprised the current service costs of K1,400,000, the past service costs of K900,000 and net interest cost K700,000. The amount of pension paid to retirees during the year ended 31 December 2023 amounted to K6,000,000.

(v) Other employee's salaries and wages of K34,000,000.

(vi) Other business related operating expenses of a revenue nature which accounted for the remaining balance.

**Other information**

(1) Withholding tax paid on interest income amounted to K6,178,000 during the year ended 31 December 2023.

(2) Provisional income tax paid during the year ended 31 December 2023, amounted to K3,210,000.

(3) Buildings, implements, plant and machinery qualifying for capital allowances at 1 January 2023 were as follows:

| Date of purchase | Asset | Cost |
|---|---|---|
| | | K |
| 1 January 2018 | Buildings | 13,000,000 |
| 1 April 2020 | Office equipment | 4,000,000 |
| 1 August 2021 | Toyota Hilux Double cab van (2,900cc) | 1,600,000 |
| 1 August 2021 | Pool cars (2,200cc) | 1,400,000 |

The Toyota Hilux Double Cab Van is used by the Managing Director on a personal-to-holder basis.

**Future plans**

The Directors are considering changing the accommodation policy for the Directors who are currently accommodated in company owned houses. The company will now pay the directors a housing allowance of 30% of their current all-inclusive salaries in order to enable them arrange for their own accommodation in the near future. The two (2) houses will then be put on rent at a gross rent of K21,000 per month each.

The maintenance expenses relating to the houses are expected to be K3,200 per month for each house. The directors wish to know the taxation implications both for themselves as individuals and for the company.

The NAPSA earnings ceiling for NAPSA contributions purposes should be taken to be K322,080.

**Required:**

(a) Calculate the amount of income tax payable by CopperSave Bank Plc for the tax year 2023. (14 marks)

(b) Advise the Directors of CopperSave Bank Plc of the income tax implications, both for themselves individually and for the company, arising from the change of accommodation policy. Your answer should include a computation of additional income tax and NAPSA contributions if any that will arise per annum. (6 marks)

**[Total: 20 marks]**

## QUESTION THREE

Pezel Plc, is a Zambian resident manufacturing company, which holds investments in ordinary shares, and bonds of PLN International, a company resident in a foreign country. Pezel Plc's tax adjusted business profits from its Zambian operations for the year ended 31 December 2023, was K24,500,000. The company also received dividends of K3,400,000 (net) from its investment in a Zambian resident, private limited company, which is not listed on the Lusaka Securities Exchange.

Pezel Plc received the following income from foreign sources from its investments in PLN International, which has not been included in the profit figure from Zambian operations given above.

| | **K** |
|---|---|
| Dividends (net) | 2,681,250 |
| Bond interest | 2,115,000 |

The withholding tax rate on dividends in the foreign country is 35%, whilst the withholding tax rate on the bond interest is 25%.

The Executive Director of Pezel Plc, James Chilambwe holds investments in the ordinary shares and bonds of PLN International. He received the following income from foreign sources, from his investments in PLN International.

| | **K** |
|---|---|
| Dividends (net) | 57,200 |
| Bond interest (net) | 70,500 |

His annual salary for the year 2023 was K720,000. He pays 5% of his gross earnings as NAPSA contributions. In the tax year 2023, Chilambwe additionally generated the following income from Zambian sources:

| | **K** |
|---|---|
| Treasury bill discount (net) | 105,750 |
| Dividends from LuSE Listed companies (net) | 127,500 |

There is no double taxation convention between Zambia and the foreign country in which PLN International is based. Credit is available for any tax suffered in the foreign country.

**Required:**

(a) Explain the meaning of a double taxation convention and explain any alternatives to the double taxation convention which may be available in international aspects of Zambian taxation. (5 marks)

(b) Calculate the company income tax paid by Pezel Plc for the tax year 2023. (8 marks)

(c) Calculate the income tax paid by James Chilambwe for the tax year 2023. (7 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

Mabula Mining is a Zambian resident subsidiary of a foreign based mining company. The company is engaged in open cast mining operations of copper and other minerals in Zambia. The group financial statements are prepared in United States dollars. The company's statement of profit or loss for the year ended 31 December, 2023 is provided below.

**MABULA MINING PLC**
**STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2023**

| | | K'000 |
|---|---|---|
| Gross profit | | 164,082 |
| Mineral exploration expenses | | (400) |
| Operating expenses | (1) | (94,560) |
| Investment income | (2) | (100) |
| Finance costs | | (24,000) |
| Earnings before income taxes | | 45,222 |
| Income tax expense | | (8,124) |
| Net Loss | | 37,098 |

The Following additional information is relevant:

**Note 1: Operating expenses**

Included within operating expenses are depreciation charges of K15,000,000, impairment losses on mining equipment of K100,000, unrealized foreign exchange losses of K1,050,000, expenditure incurred on the construction of a police post for the community in the mining township amounting to K980,000, donations of clothing and food stuffs to less privileged families in the local mining township amounting to K680,000. The remaining balance represented revenue operating expenses which are allowable for tax purposes.

**Note 2: Investment income**

This includes dividends from Zambian companies K80,000 (gross) and fixed deposit interest from a local commercial bank of K20,000 (gross). Withholding tax had been deducted at source.

**Note 3: Income tax**

This represents the amount of provisional income tax paid during the year ended 31 December 2023.

**Note 4: Mineral Royalty Tax**

The Mineral royalty tax paid by the company has not been accounted for in the statement of profit or loss shown above.

Mabula Mining Plc extracted the following base and precious minerals during the tax year 2023:

| **Mineral** | **Category** | **Norm Value** |
|---|---|---|
| Gold | Precious mineral | K9,600,000 |
| Nickel | Base metal | K5,200,000 |
| Vanadium | Base metal | K1,300,000 |

The company additionally extracted and sold 5,000 tonnes of copper in the year ended 31 December 2023:

The norm price of copper at the London Metal Exchange (LME) averaged US$6,300 per tonne throughout the year. The relevant average Zambian kwacha per US dollar rate approved by the Commissioner General was K18.00/US$1 for the year 2023.

**Note 5: Implements, plant and Machinery.**

On 1 January 2023 the company held mining equipment with an original cost of K2,800,000 and a Copper Smelting plant with an original cost of K3,500,000 on which capital allowances could be claimed. The expenditure on these assets was incurred in Zambia and paid for in Zambian Kwacha in February 2020.

**Required:**

(a) Calculate the amount of mineral royalty tax paid during the year ended 31 December 2023. (6 marks)

(b) Calculate the amount of taxable mining profits for the tax year 2023. (11 marks)

(c) Calculate the amount of income tax payable for the tax year 2023. (3 marks)

**[Total: 20 Marks]**

**<u>QUESTION FIVE</u>**

**Assume today's date is 31 December 2023.**

You are employed in a firm of Chartered Accountants and you have been assigned to deal with the tax affairs of BAT Limited, a Zambian resident manufacturing company, which is a client of your firm. The company's annual turnover has always exceeded K800,000. BAT Limited has been a client of your firm since 2019 for both audit and non-audit services. Over the years, your firm and BAT Limited have built a good working relationship.

BAT Ltd has just received a notice from the Zambia Revenue Authority for a tax audit which will be conducted during the week starting on 12 February 2024.

The Finance Director has indicated that the balance of the income tax payable for the tax year 2022 was paid on the appropriate due date. The self-assessment income tax return was also submitted on the appropriate due date. After a thorough check in the income tax return for the tax year 2022, you discovered the following:

(1) Expenditure amounting to K240,000 was incurred during the year ended 31 December 2022. This expenditure was incurred in making an extension to the factory. The company charged this cost to cost of sales in the statement of profit or loss for that year. The Finance Director of BAT Ltd has argued that, there was no need of making tax adjustments because the factory has been in existence for so many years, hence the cost incurred was regarded as a maintenance cost.

(2) During the year ended 31 December 2022, the company advanced an interest free loan amounting to K105,000 to the Managing Director. The loan is repayable in three (3) years' time. The Managing Director holds 40% of the issued equity share capital of BAT Limited. The company did not make any adjustment in respect of this transaction.

(3) During the year ended 31 December 2022, the Finance Director drew goods worth K56,000 from the company without paying for them. The Finance Director holds 22% of the issued equity shares of BAT Limited. No adjustment was made for this transaction.

The Finance Director is of the view that there is no need to avail this information to the ZRA tax auditors since the income tax return to which they relate has already been submitted. The Director has cautioned you not to disclose this information to anyone as doing so will breach the principle of confidentiality, and possibly result in the termination of contract for taxation services. In addition, the Managing Director has indicated to you that if the assignment is performed properly, you will be able to buy assorted goods from the company at a discount of 30%.

**Required:**

(a) Evaluate the ethical threats to compliance with fundamental principles of the code of ethics you will be exposed to in the provision of tax services to BAT Ltd and recommend appropriate safeguards to manage the threats to acceptable levels. (6 marks)

(b) Discuss the ethical implications arising from the Finance Director's proposal not to disclose the errors and omissions to ZRA officers or anyone else. (4 marks)

(c) Advise the Directors of BAT Ltd of the correct tax treatment of each of the transactions (1), (2) and (3) omitted from the income tax return for the year ended 31 December 2022, calculating the amount of any additional income tax payable or tax savings arising from each transaction and evaluate the overall impact of the transactions on the tax position of the company. **You should assume that the tax rates and regulations for the tax year 2023, apply throughout.** (10 marks)

**[Total: 20 Marks]**

## END OF PAPER

# CA 3.4 ADVANCED TAXATION SUGGESTED SOLUTIONS

## SOLUTION ONE

(a) (i) On incorporation the old business ran as sole trader will be deemed to have ceased trading and the newly formed company, Siku Ltd., deemed to have commenced trading on date of incorporation.

Simasiku will be assessed as sole trader on the income generated by the business in the year ended 30 June 2023 which will be classified as business profit, whilst the income he will draw in the six months period to 31 December 2023, as a director in Siku Limited after incorporation of the business will be classified as employment income. This income will be aggregated and then subjected to the personal income tax rates.

The income earned by Namasiku before and after incorporation in the tax year 2023, will be assessed on her as employment income.

**Basis of assessment for profits in the year ended 30 June 2023**

Cessation rules will be applied to determine the tax year in which the final taxable profits, made in the year ended 30 June 2023 will be assessed.
Since the last accounting period of operating as a sole trader is exactly 12 months long, the normal rules will apply i.e. the CYB or PYB as applicable.

Specifically, the current year basis of assessment will be applied because the final accounting date of trading as a sole trader falls between 1 April and 31 December inclusive. The profits made in the year ended 30 June will therefore be assessed in the tax year that is the tax year 2023.

Assets qualifying for capital allowances will be deemed to have been disposed of at their market values and therefore balancing allowances or charges will arise when computing final taxable profits for the year ended 30 June 2023.

COMPUTATION OF FINAL TAXABLE PROFITS

| | K |
|---|---|
| Taxable profit as per question | 860,000 |
| Less | |
| Namasiku's salary | (240,000) |
| Namasiku's motoring allowance | (72,000) |
| Employer's NAPSA contributions | |
| (K240,000 +72,000) x 5% | (15,600) |
| Capital allowances (W) | (20,000) |
| | 512,400 |

WORKINGS

COMPUTATION OF CAPITAL ALLOWANCES

| | K | | K |
|---|---|---|---|
| Ford Ranger (Double cab) | | | |
| ITV b/f | 240,000 | | |
| Market value | (200,000) | | |
| Balancing charge | 40,000 | x 75% | 30,000 |
| Isuzu van (single cab) | | | |
| ITV b/f | 375,000 | | |
| Market value | (250,000) | | |
| Balancing allowance | 125,000 | | 125,000 |
| Fixture & Fittings | | | |
| ITV b/f | 55,000 | | |
| Market value | (30,000) | | |
| Balancing allowance | 25,000 | | 25,000 |
| Shop buildings | | | |
| ITV b/f | 640,000 | | |
| Market value (restricted to cost) | (800,000) | | |
| Balancing charge | (160,000) | | (160,000) |
| | | | 20,000 |

(ii) **Basis of assessment for profits made by Siku Ltd**

Commencement rules would be applied in determining the tax year in which the final taxable profits made by Siku Limited in the six months to 31 December 2023, will be taxed.

Since the first accounting period of trading as a private limited company is made up of less 12 months, the normal rules will apply. Specifically, the current year basis of assessment will apply as the accounting date falls between 1 April and 31 December inclusive. The profits will be taxed in the tax year 2023.

On incorporation Siku Ltd will be deemed to have purchased the assets qualifying for capital allowances at their market values from the sole proprietorship and therefore capital allowances will be computed using the market values of the assets on the date of incorporation when computing the final taxable profits of Siku Ltd.

COMPUTATION OF FINAL COMPANY INCOME TAX PAYABLE BY SIKU LIMITED

| | K | K |
|---|---|---|
| Profit as per question | | 1,480,000 |
| Personal to holder motor car benefit | | 48,000 |
| | | 1,528,000 |
| Less: | | |

| | | |
|---|---|---|
| Salaries | | |
| Simasiku's salary (K312,000 x 6/12) | 156,000 | |
| Namasiku's salary (K240,000 x 6/12) | 120,000 | |
| | | (276,000) |
| Motoring allowances for: | | |
| Simasiku (K84,000 x 6/12) | 42,000 | |
| Namasiku (K72,000 x 6/12) | 36,000 | |
| | | (78,000) |
| Employer's NAPSA contributions for: | | |
| Simasiku restricted (K322,080 x 5%) x 6/12) | 8,052 | |
| Namasiku (K120,000 + K36,000) x 5% | 7,800 | |
| | | (15,852) |
| Capital allowances (W) | | (134,000) |
| Final taxable profits | | 1,024,148 |
| | | |
| Company income tax K1,022,148 x 30% | | 307,244 |

WORKING

COMPUTATION OF CAPITAL ALLOWANCES

| | K |
|---|---|
| Ford Ranger (Double cab) | |
| Wear and tear allowance | |
| (K200,000 x 20%) | 40,000 |
| Isuzu van (single cab) | |
| Wear and tear allowance | |
| (K250,000 x 25%) | 62,500 |
| Fixtures & fittings | |
| Wear and tear allowance | |
| (K30,000 x 25%) | 7,500 |
| Shop buildings | |
| Wear and tear allowance | |
| (K1,200,000 x 2%) | 24,000 |
| | 134,000 |

(iii) PERSONAL INCOME TAX COMPUTATIONS FOR THE TAX YEAR 2023 FOR

| | Simasiku | Namasiku |
|---|---|---|
| | K | K |
| Business Profits (a) | 512,400 | - |
| Employment income | | |
| - Salaries | 156,000 | 240,000 |
| - Motoring allowances | 42,000 | 72,000 |
| Total income | 710,400 | 312,000 |
| Income Tax | | |

| | | |
|---|---|---|
| On first K106,800 | 12,360 | 12,360 |
| On excess K603,600/K205,200 x 37.5% | 226,350 | 76,950 |
| | 238,710 | 89,310 |

(b) (i) Property transfer implications of transfer into trust

The transfers of property by a settlor to trustees into a trust during the settlor's lifetime, for the benefit of the members of his immediate family, is an exempt transfer for property transfer tax (PTT) purposes. Therefore, if Simasiku transfers the property into the trust for the benefit of his daughter, Imasiku, no PTT will arise.

(ii) Income tax implications

Income of a trust is taxable at 30% as a trust is assessed as a person other than an individual. However, if Simasiku transfers the property into the trust, then the trust will be generating income from letting of property and therefore, the income will be assessed under rental income tax as opposed to company income tax.

This is because income from letting of property is assessable to rental income tax regardless of whether the tax payer is an individual or a person other than an individual.

The tax will be charged on the gross monthly rentals without deducting any expenses incurred wholly and exclusively in running the trust, and will be payable by the $14^{th}$ day following the end of each month.

The rental income tax arising will be computed as follows:

| | K |
|---|---|
| Gross rentals | 1,650,000 |
| Rental Income Tax | |
| On first K12,000 x 0% | 0 |
| On next (K800,000 - K12,000) x 4% | 31,520 |
| On excess (K1,650,000 - K800,000) x 12.5% | 106,250 |
| | 137,770 |
| | |
| Rental income tax per month K137,770/12 | 11,480 |

(c) If Simasiku lets out the property from 1 January 2023, then any income which will be generated from letting will still be assessed under rental income tax.

The rental tax will be charged on monthly basis on the gross rentals received every month without deducting any expenses incurred wholly and exclusively for letting including the property management fee of K125,000 which he will draw for the year.

The amount of rental income tax will be computed as follows:

| | K |
|---|---:|
| Gross rentals | 1,650,000 |
| Rental Income Tax | |
| On first K12,000 x 0% | 0 |
| On next (K800,000 - K12,000) x 4% | 31,520 |
| On excess (K1,650,000 - K800,000) x 12.5% | 106,250 |
| | 137,770 |

(d) From a taxation point of view, there will be no difference in the amount of tax arising whether the property is transferred into a trust or not.

This is because the tax treatment of the income arising from the property will be the same regardless of whether he transfers the property into the trust or not. The amount of annual rental income tax which will arise in each case will be K137,770.

**SOLUTION TWO**

(a) COPPERSAVE BANK PLC
COMPUTATION OF TAXABLE INCOME AND COMPANY INCOME TAX PAYABLE FOR THE TAX YEAR 2023

| | K | K |
|---|---:|---:|
| Profit before tax | | 34,400,900 |
| Add: | | |
| Increase in general allowance | 2,300,000 | |
| Share option expenses | 1,230,000 | |
| Employee benefits expenses | 3,000,000 | |
| Donation to political parties | 848,000 | |
| Free accommodation benefit: | | |
| Managing Director (K1,200,000 x 37.5%) | 450,000 | |
| Finance Director (K920,000 x 37.5%) | 345,000 | |
| Personal-to-holder car benefits (MD) | 48,000 | |
| | | 8,221,000 |
| | | 42,621,900 |
| Less: | | |
| Dividends income | 70,000 | |
| Royalties | 430,000 | |
| Pension paid to retirees | 6,000,000 | |
| Capital allowances: | | |
| Buildings (K13,000,000 x 2%) | 260,000 | |
| Office equipment (K4,000,000 x 25%) | 1,000,000 | |
| Toyota Hilux (K1,600,000 x 20%) | 320,000 | |
| Pool motor cars (K1,400,000 x 20%) | 280,000 | |
| | | (8,360,000) |
| Taxable profit | | 34,261,900 |
| Add: | | |
| Royalties | | 430,000 |
| Taxable income | | 34,691,900 |
| | | |
| Company Income tax (K34,691,900 x 30%) | | 10,407,570 |
| Less: | | |
| Withholding tax on interest income | | (6,178,000) |
| WHT- Royalties (K430,000 x 15%) | | (64,500) |
| Provisional income tax | | (3,210,000) |
| Income tax payable | | 955,070 |

(b) The following are the income tax implications arising from the change in the accommodation policy:

**Tax implications for the directors individually**

(1) The housing allowance will be a taxable benefit and hence will be taxable on each director together with other taxable emoluments under the pay as you earn system. The additional income tax payable by the directors per annum is as follows:

Managing Director: K1,200,000 x 30% x 37.5% = K135,000

Finance Director: K920,000 x 30% x 37.5% = K103,500

(2) There will be no additional employee's NAPSA contributions to be paid by each director as each individual's current gross earnings are more than the earnings ceiling for NAPSA purposes of K322,080

**Tax implications for the company**

(1) There will be no accommodation benefit to be disallowed on the company when computing the tax adjusted business profit once the changes are implemented. This means that the accommodation benefit of K795,000 [(K1,200,000 + K920,000) x 37.5%] will not be disallowed. The company will save income tax amounting to K238,500 (K795,000 x 30%) per annum.

(2) The housing allowance to be paid to the directors will be an allowable deduction when computing the taxable business profit for the company. The housing allowance will amount to K636,000 [(K1,200,000 + K920,000) x 30%]. This will result in income tax savings amounting to K190,800 (K636,000 x 30%) per annum.

(3) There will be no additional employer's NAPSA contributions to be paid by the company as each director's current earnings are above the earnings ceiling of K322,080.

(4) The company will be subjected to rental income on any income generated from letting out of the houses as income generated from letting of real property is taxable under rental income tax.

(5) Rental income tax is chargeable at 0% on the first K12,000 per annum, 4% on any income falling between K12,000 and K800,00 per annum and 12.5% on any income exceeding K800,00 per annum.

The annual gross rental arising from letting out of the two houses will be K504,000 (K21,000 x 12 x 2). Therefore, the amount of rental income tax arising per annum will be:

| | K |
|---|---|
| Gross annual rental income | 504,000 |
| Rental income Tax | |
| On first K12,000 x 0% | 0 |
| on excess (K504,000 - K12,000) x 4% | 19680 |
| | 19680 |

(6) The maintenance expenses to be incurred by the company in connection with the two houses, will not be deductible when computing the rental tax.

**SOLUTION THREE**

(a) A double taxation convention is a convention signed by two countries describing how double taxation relief will be given to eliminate the effects of double taxation where income that has suffered tax in one country is also subjected to tax in the other country.

A double taxation convention can be structured in different ways. In some cases, the treaty may provide that income is only charged to income tax in one of the two contracting countries, or income is charged to tax in one country, with the tax being apportioned between the two countries.

Alternatively, the double taxation convention may provide for full recovery of any foreign tax covered by the agreement, by means of a tax credit to a Zambian resident person, against the Zambian income tax, as long as the relief does not exceed the equivalent Zambian tax charge.

Where a double taxation convention does not exist, the consequences or implications are that double taxation relief is given by way of unilateral relief which involves the relief being given unilaterally in Zambia by crediting the amount of foreign tax suffered against the Zambian income tax on the foreign income, limited to a maximum of the Zambian tax on that foreign income.

Alternatively in the absence of a double taxation convention, the relief may also be given by way of unilateral expense relief by deducting the foreign tax from the foreign income, as if it were an expense, before including it in the Zambian tax computation. This means that the amount of foreign income net of foreign taxes paid, is charged to income tax in Zambia. However, this would only apply where unilateral credit is not available.

(b) PEZEL
COMPUTATION OF COMPANY INCOME TAX PAYABLE

| | K'000 | K'000 |
|---|---|---|
| Tax adjusted profits | | 24,500,000 |
| Income from foreign sources | | |
| Dividends (K2,681,250 x 100/65) | 4,125,000 | |
| Bond interest (K2,115,000 x 100/75) | 2,820,000 | |
| | | 6,945,000 |
| | | 31,445,000 |
| Company income tax | | |
| (K31,455,000 x 30%) | | 9,433,500 |
| Less DTR on foreign: | | |
| - Dividends | 1,167,674 | |
| - Bond interest | 705,000 | |

| |
|---:|
| 1,872,674 |
| 7,560,826 |

WORKINGS

(1) Double taxation relief on dividend from Pezel plc is the lower of:

(i) Foreign withholding tax paid

= K4,125,000 x 35%

= K1,443,750

(ii) Zambian income tax attributed to the foreign dividend

$$\frac{\text{Gross amount of foreign income}}{\text{Total Assessable income}} \times \text{Zambian Tax charge}$$

$$\left(\frac{K4{,}125{,}000}{K35{,}445{,}000(W1)}\right) x\ K10{,}033{,}500(W2)$$

= K1,167,674

DTR is K1,167,674, being the lower amount.

(2) Total assessable income

| | K |
|---|---:|
| Income chargeable to Company income tax | 31,445,000 |
| Gross Zambian dividend (K3,400,000 x 100/85) | 4,000,000 |
| Total assessable income | 35,445,000 |

(3) Total amount of Zambian tax charge

| | K |
|---|---:|
| Zambian Company Income Tax Liability | 9,433,500 |
| Withholding tax on Zambian dividend (15% x K4,000,000) | 600,000 |
| Total Zambian tax charge | 10,033,500 |

(4) Double taxation relief on bond interest from PLN is the lower of:

(i) Foreign withholding tax paid

= K2,820,000 x 25%

= K705,000

(ii) Zambian income tax attributed to the foreign bond interest

$$\left(\frac{K2,820,000}{K35,445,000(W1)}\right) x\ K10,033,500(W2)$$

= K798,264
DTR is K705,000, being the lower amount.

(c) JAMES CHILAMBWE
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2023

| | K | K |
|---|---|---|
| Salary | | 720,000 |
| Income from foreign sources | | |
| Dividends (K57,200 x 100/65) | | 88,000 |
| Bond interest (K70,500 x 100/75) | | 94,000 |
| | | 902,000 |
| Income Tax | | |
| On first K106,800 | | 12,360 |
| On Excess (K902,000 - K106,800) x 37.5% | | 298200 |
| | | 310,560 |
| Less DTR on: | | |
| Foreign dividends | 29,232 | |
| Bond interest | 23,500 | |
| | | 52,732 |
| | | 257,828 |

WORKINGS

(1) Double taxation relief on dividend from Pezel plc is the lower of:

(i) Foreign withholding tax paid

= K88,000 x 35%

(2) Total assessable income

| | K |
|---|---|
| Income chargeable to Company income tax | 902,000 |
| Gross Treasury bill discount (K51,000 x 100/85) | 60,000 |
| Total assessable income | 962,000 |

(3) Total amount of Zambian tax charge

| | K |
|---|---|
| Zambian Personal Income Tax Liability | 310,560 |

| | |
|---|---|
| Withholding tax on Treasury bill (15% x K60,000) | 9,000 |
| Total Zambian tax charge | 319,560 |

(4) Double taxation relief on bond interest from PLN is the lower of:

(i) Foreign withholding tax paid

= K94,000 x 25%

= K23,500

(ii) Zambian income tax attributed to the foreign bond interest

$$\left(\frac{K94{,}000}{K962{,}000(W1)}\right) x\ K319{,}560(W2)$$

= K31,225

## SOLUTION FOUR

(a) Mineral royalty on copper

| | K'000 |
|---|---|
| First $3,999 X 5,000 tonnes x K18 x 4.0% | 14,396.4 |
| Next $1,000 x 5,000 tonnes x K18 x 6.5% | 5850.0 |
| Excess $1,301 x 5,000 tonnes x K18 x 8.5% | 9,953.0 |
| | 30,199.4 |
| Gold (9,600,000 x 6%) | 576.0 |
| Nickel (5,200,000 x 5%) | 260.0 |
| Vanadium (K1,300,000 x 5%) | 104.0 |
| | 31,139.4 |

(b) COMPUTATION OF TAXABLE MINING PROFIT

| | K'000 | K'000 |
|---|---|---|
| Earnings before income taxes | | 45,222 |
| Add: | | |
| Depreciation | 15,000 | |
| Impairment | 100 | |
| Construction of police post | 980 | |
| Unrealized foreign exchange losses | 1,050 | |
| Donations to the less privileged | 680 | |
| | | 17,810 |
| | | 63,032 |
| Less: | | |
| Dividends | 80 | |
| Fixed deposit interest | 20 | |
| Capital allowances (W1) | 1,456 | |
| Mineral royalty (W2) | 31,139 | |
| | | (32,695) |
| Adjusted mining profits before interest adjustment | | 30,337 |
| Disallowed Interest | | 3,193 |
| Taxable business profits | | 33,530 |

WORKINGS

(1) COMPUTATION OF CAPITAL ALLOWANCES

| | K'000 |
|---|---|
| Police post | |
| Wear and tear allowance | |
| (K680,000 x 20%) | 196 |
| Mining equipment | |
| Wear and tear allowance | |
| (K2.8m x 20%) | 560 |
| Copper Smelting Plant | |
| (K3.5m x 20%) | 700 |

| |
|---|
| 1,456 |

(2) COMPUTATION OF TAX EBITDA & DISALLOWED INTEREST

| | K |
|---|---|
| Taxable mining profit | 30,337 |
| Fixed deposit interest | 20 |
| Taxable income | 30,357 |
| Add | |
| Finance cost | 24,000 |
| Depreciation | 15,000 |
| Tax EBITDA | 69,357 |
| | |
| Gross finance cost | 24,000 |
| Allowable interest (K69,357 x 30%) | 20,807 |
| Disallowed interest | 3,193 |

(d) MABULA MINING
COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2023

| | K'000 |
|---|---|
| Mining Profits | 33,530 |
| Fixed deposit interest | 20 |
| | 33,550 |
| Company income tax on | |
| Mining profits (K33,550 x 30%) | 10,059 |
| Fixed deposit interest (K20 X30%) | 6.00 |
| | 10,065 |
| Less Tax already paid | |
| WHT on Fixed deposit interest (K20m x 15%) | (3) |
| Provisional income tax | 8,124 |
| | 1,938 |

**SOLUTION FIVE**

(a) The following are the threats to compliance:

(1) Self-review threat

This threat may occur when a member is required to review the work they have previously done, which makes it difficult to for the member to reevaluate their work objectively. The firm provides audit and non-audit services to BAT Limited, which includes preparation of financial statements and taxation services.

Appropriate safeguards include assigning different departments of the firm to perform the audit work and the non-audit. The firm could further have an independent professional review the work done by your firm for this client.

(2) Intimidation threat

This threat occurs when a member is deterred from acting objectively due to pressures and attempts to exercise undue influence over the member. The Finance Director has cautioned the member that if any of the information pertaining to the tax irregularities is reported, the contract will be terminated. This may pressure a member not to act objectively.

An intimidation threat creates an ethical threat to objectivity which is so significant that there may be no appropriate safeguards which can be implemented to reduce the threat to an acceptably low level. The firm should try to resolve the matter amicably with the client, failure to which, your firm must terminate the assignment.

(3) Self-interest threat

This threat arises where a member has financial interests or other interests in a client which may inappropriately affect their professional judgements. The Managing Director's offer of 30% discount of all the purchases made from the company may inappropriately affect the judgement of the member.

The appropriate safeguard is to refuse the offer of the discount.

(4) Familiarity threat

This threat arises where a member or the firm have a long or close relationship with the client. There is a threat that a member may be too sympathetic to the interest of the client. In this case, BAT Limited has built close relations with the client and hence there is a possible familiarity threat which may inappropriately affect the firm's compliance with the fundamental ethical principles.

Appropriate safeguards include rotating senior staff off the assignment and/or having an independent professional review the work done by your firm for this client.

(b) The principle of integrity imposes an obligation on a member to be straightforward, fair dealing, truthfulness and commitment not to mislead or deceive. This means a member providing taxation services must not be associated, knowingly, with reports, information and communications where a member believes that the information is false or misleading.

The errors and omissions discovered on the income tax return for the tax year 2022 is an indication that the return previously submitted was incorrect and misleading. Therefore, the principle of integrity requires a member not to be associated with such kind of information.

In as much as the principle of confidentiality requires a member not to disclose any information acquired during the course of an assignment to third parties without proper authority, there is an exception to this rule.

A member has an obligation to disclose the information acquired during the course of the assignment if the disclosure is in the interest of the public.
In the case of BAT Limited, a member should immediately inform the supervisor for guidance on this matter, and if possible, report the matter to the relevant authorities.

(c) Income tax implications of the transaction omitted from the income tax return are as follows:

(1) Extension to the factory

The expenditure incurred to extend the factory is a capital expenditure, hence it was supposed to be added to the cost of the factory and claim capital allowances.

The extension costs were charged to profit or loss as maintenance costs which mean that the profits of the company for the tax year 2022 were understated. This resulted in an underpayment of income tax for the tax year 2022.

The amount of income tax underpaid will be calculated as follows:

| | K |
|---|---|
| Factory extension costs | 240,000 |
| Less capital allowances: | |
| Initial allowance (K240,000 x 10%) | (24,000) |
| Investment allowance (K240,000 x 10%) | (24,000) |
| Wear & tear allowance (K240,000 x 5%) | (12,000) |
| | 180,000 |
| Income tax underpaid (K180,000 x 30%) | 54,000 |

(2) Interest free loan

The Managing Director of BAT plc holds 40% of the issued equity shares of the company, which means that the director is an effective shareholder of the company. Therefore, an

interest free loan advanced to the director constitutes a loan made to an effective shareholder.
The company should have computed income tax on the interest free loan, without assessment, at a rate of 37.5% of the grossed up equivalent amount of the loan. This means that the income tax was underpaid since no loan to an effective shareholder was declared by the company for the tax year 2022.

The amount of tax underpaid on the loan is therefore; K105,000 x 37.5/62.5 = K63,000. This amount of income tax is refundable, if the company makes a claim, upon the amount of the loan being repaid by the shareholder.

(3) Goods taken from the business
The Finance Director holds 22% of the issued equity shares of BAT Limited, which is more than 5%. This means that the director is an effective shareholder of the company.

Where a company provides goods or services to an effective shareholder at a price lower than the market value of those goods or services, the difference constitutes a loan to an effective shareholder.

in this case, the Finance Director, who is an effective shareholder, withdrew goods from the business without paying for them. Therefore, the whole value of the goods drawn will constitute a loan to an effective shareholder.

The company should have computed income tax, without assessment, on the value of the goods at a rate of 37.5% of the grossed up equivalent value of the goods. The amount of income tax underpaid, on the loan, is; K56,000 x 37.50/62.50 = K33,600.

**Overall impact on tax position of the company**

| | |
|---|---|
| Income tax underpaid on wrong classification of expenditure | 54,000 |
| Tax underpaid on the loan to effective shareholder | 63,000 |
| Tax underpaid, on the goods to effective shareholder | 33,600 |
| Overall increase in tax liability | 150,600 |

## END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 12 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

10. Modified Internal Rate of Return formulae, Present Value and Annuity Tables are attached at the end of the question paper.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A**

**This Question is compulsory and must be attempted**

**QUESTION ONE- (COMPULSORY)**

A multinational organization, TM Plc, has two (2) newly created divisions, Tendai division (TD) and Mendai division (MD). They operate as autonomous units. However, some of their final product markets overlap. The managers of TD and MD each endorsed an initial budgetary plan whereby 18% per annum would be charged as notional interest on their net assets by the TM plc.

TD managed to clinch a contract to supply some intermediate products to Chenai Ltd (C Ltd) during the first year of operations. C Ltd does not belong to TM plc but it is a direct competitor in the MD'S market. MD could have bought the same intermediate product from TD but preferred to purchase them from an external supplier.

C Ltd managed, in first year of operations, to get a 2.5 increase (in relative terms) in its share of the market at the expense of MD based on the previous size of the market. By and large C Ltd's success was attributed to the high quality of TD's intermediate product relative to its competitors.

The following summary data relate to the budgets initially agreed by TD and MD.

| | TD | MD |
|---|---|---|
| | **K'million** | **K'million** |
| Initial investment in machinery | 20 | 30 |
| Estimated net cash flows: | | |
| Year 1 | 3.8 | 6.4 |
| Years 2-8 | 5.8 | 8.4 |
| Imputed interest | 18% | 18% |

MD and C Ltd were each initially expected to have a 50% share in the final product market, the latter being MD's exclusive market outlet. You are required to assume that:

1. The operating efficiencies of MD and C Ltd are largely similar.
2. The 2.5% increase in market share made by C Ltd results in a pro rata 2.5% increase in MD's net cash flow.

**Required:**

(a) (i) Evaluate the two (2) divisions' expected performance as envisaged by the TM Group at the time of their establishment using Return on investment (ROI), Residual Income (RI) and Net Present Value (NPV). Make any necessary assumptions. (12 marks)

(ii) Evaluate the actual performance of the TD and MD in the first year of their opera operations relative to plan. In addition, evaluate the combined results of the two (2) divisions, both plan and actual results. Give a reasoned interpretation of the outcomes. (12 marks)

The Board of Directors of the TM group has suggested that performance measurement for TD and MD should be based on discounting future estimated cash flows to avoid problems posed by the Return On Investment (ROI) and the Residual Income(RI).

**Required:**

(iii) Discuss how this could be done and the advantages and disadvantages of such a performance measurement method. (4 marks)

Two (2) older divisions of the TM group were created over two decades ago. These divisions are the Abercon (A division) and the Bancroft (B division). A division sells an intermediate product to B division regularly and also to external customers. B division has been approached by another company which has offered to supply 2,500 Kg of the intermediate product at a price of K17.50 per Kg.

Below is the summary of cost details for the A division.

| | K'000 |
|---|---|
| Sales revenue: external market@K22.5/kg | 135 |
| Sales revenue : internal market@ K20.0/Kg | 200 |
| | 335 |
| Less: variable costs @ K11 per kg | (176) |
| Total contribution | 159 |
| Less: fixed costs | (50) |
| Net profit | **109** |

Should B division decide to buy from the external supplier, the A division would be able to replace any lost sales volume by selling externally at the current market price of K22.5 per Kg.

**Required:**

(b) If the B division buys from the external supplier, calculate the impact of this decision on the profits of:

(i) The A division (3 marks)
(ii) The B division (2 marks)
(iii) The TM group (2 marks)

(b) The Denai division (DD) is another old division in the TM group. It is involved in the confectionaries and one product it sells internally to A division and externally, is the cake. Division A then personalises these cakes for sale, as part of the luxury niche market. When the D division sells the cakes externally, it does so at full cost plus 5% - 10% depending on the amount available for sale. A division can buy in cakes from other suppliers, at cost plus 15% - 22.5%.

**Required:**

Discuss the consequent behaviour of the two (2) divisions and the impact on the overall profit of the TM group of the following transfer pricing policies:

(i) Marginal cost (3 marks)

(ii) Full cost plus 25% (2 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any THREE (3) questions in this section.**

**QUESTION TWO**

Patel Company is Zimbabwean company specialised in accounting software. In 2022, the company opened a branch in Zambia as part of its expansion strategy. The IT Director, Jones Phiri, of Patel Company proposed to install a new software (ZIM 2) at the Zambian branch although it has not been tested in the Zimbabwean market to prove its effectiveness. Due to the time constraint, Jones abandoned all other projects to try and focus on the Zambian software implementation. This action has not been received well by the team who were still working on old projects as they feel that the director implements these projects in a haphazard manner.

The IT director has further moved experienced staff to the new project leaving junior experts on existing projects. The senior experts feel their director does not respect their expertise and as such feel demotivated even when they are moving to this new project in Zambia. He, however, does not really care so much about these complaints as he feels. Jones is more concerned with the new system being configured according to schedule. He further indicated to senior experts that even junior experts could be able to do the work that they perform and as such there is no need to feel demotivated as they are paid for their assignments and for each project they complete.

**Required:**

(a) Discuss how Patel Company is poorly managing the projects. (8 marks)

(b) Explain the role of the project manager in resolving the issues in Patel Company. (8 marks)

(c) Explain the aim of post project completion audit. (4 marks)

**[Total: 20 Marks]**

**QUESTION THREE**

Air Mukwai Express Services Ltd (AMES Ltd) provides the fastest, most reliable door-to-door express delivery services to its customers. It has been very successful so far. The budgetary planning and control system make use of incremental budgeting whereby a percentage is added to the previous year's budget to arrive at the new budget. Performance measures then make comparisons between the budget and actual results. These financial measures have served the company well in the past.

The market for express services has now grown dramatically and more and more companies are providing services (including small companies that use motor cycles to make deliveries) and outsourcing their services due to the JIT business environment. Competition has gently affected AMES Ltd's business in terms of price earnings at the regional, local and global markets. To face the competition, the Board of Directors resolved that the Chief Executive Officer of AMES Ltd, Mr Gearbox Banda, attends a workshop where alternative performance measures such as the balanced score card, benchmarking, performance pyramid, activity based management and value based models were to be presented.

Mr Banda has asked you, as their Management Accountant, to prepare a report that will be used at the forthcoming board meeting. At the next meeting, only the balanced scorecard and benchmarking models will be discussed. Your report should explain these two models and how the performance of AMES Ltd may improve and become competitive if the balanced scorecard and benchmarking were to be introduced.

**Required:**

Prepare a report that:

(a) Evaluates the suitability of the existing performance measures. (6 marks)

(b) Explains the Balanced Scorecard and recommend with reasons, performance measures that could be used at AMES Ltd., and (8 marks)

(c) Explain Benchmarking and its potential impact on the operations of AMES Ltd. (6 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

Ikelenge Emeralds Mining Company Ltd (IEMC Ltd) operates in the Ikelenge district of the North Western Province. However, it has also now started extending exploratory activities in the Lufwanyama and Mkushi districts.

IEMC Ltd has stated in its mission statement that it will "try to maximize profits for its valued shareholders and at the same time recognize its wider responsibilities to the societies in which it operates." IEMC Ltd has a glorious chance to mine emeralds in some far and thinly populated areas of Lufwanyama. The implications of the proposed mining in Lufwanyama is that it will lead to all trees and grass being removed from the land. After the mining operations, there will be big lakes of water contaminated with chemicals for up to thirty years.

The mining of emeralds is profitable for the IEMC Ltd and is likely to provide jobs for the locals and boost the economy of Zambia. But if IEMC were to make good of the land to re-instate the mined areas, the cost of doing this would render the project unprofitable. After much lobbying, the company obtained permission from the Ministry of Mines to carry out the mining. IEMC Ltd faces objections from a few local communities in the remote areas of Lufwanyama who are opposed to mining because of the likely increase in traffic and noise from heavy construction trucks and possible relocation to other areas.

**Required:**

(a) Discuss the extent to which the mission statement seems to be contradictory.

(3 marks)

(b) Explain how IEMC Ltd can establish a procedure such that its wider responsibilities to society can be considered each time it is carrying out strategic decisions.

(5 marks)

(c) Advise IEMC Ltd how it could deal with strategies that prevent a conflict of objectives.

(4 marks)

(d) Discuss the ethical dimensions to mine emeralds in the outskirts of Lufwanyama.

(4 marks)

(e) Analyse how the interest and power of the local community in the outskirts of Lufwanyama can be understood, using the Mendelow's stakeholder mapping. Identify how IEMC Ltd can respond to this local community. (4 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

Trade Queens Ltd (TQ Ltd) is a manufacturer of almost twenty different products that are sold in both large and small quantities on a just-in-time (JIT) basis to wholesale businesses in Zambia. Business is highly competitive and price sensitive leading TQ to start exporting to neighbouring countries. TQ is not yet listed on the Lusaka stock exchange and performance has not matched that of its main competitors that are listed although its 'chibwantu drink' product has grown extremely popular countrywide and on the export market. Other popular product lines include 'Dumu' a detergent, 'Fantra' a mineral water, among many others.

TQ Ltd's management accounting system uses a manufacturing resource planning (MRPII) system to control production scheduling, inventory movements and inventory control, and labour and machine utilisation. The accounting department carries out a detailed annual budgeting exercise, determines standard costs for labour and materials, and allocates production overhead on the basis of machine utilisation. Strict accounting controls over labour and material costs are managed by the detailed recording of operator and machine timesheets and raw material movements, and by calculating and investigating all significant variances.

While the information from the MRPII system is useful to management, there is an absence of integrated data about customer requirements and suppliers. Some information is contained within spreadsheets and databases held by the Sales and Purchasing departments respectively. One result of this lack of integration is that inventories are higher than they should be in a JIT environment.

The managers of Trade Queens (representing functional areas of sales, production, purchasing, finance and administration) believe that, while costs are strictly controlled, the cost of the accounting department is excessive and significant savings need to be made, even at the expense of data accuracy. Managers believe that there may not be optimum use of the production capacity to generate profits and cash flow and improve shareholder value. Trade Queens's management wants to carry out sensitivity and other analyses of strategic alternatives, but this is difficult when the existing Management Accounting System is focused on control rather than on decision support.

**Required:**

(a) Explain four (4) types of information system available to TQ Ltd. (8 marks)

(b) Recommend with reasons the information system that would be appropriate for TQ Ltd.

(6 marks)

(c) Evaluate the relevance of the current management accounting system of TQ Ltd and how it could be improved. (6 marks)

**[Total: 20 Marks]**

## END OF PAPER

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}} \left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

## Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

*Discount rate (r)*

| *Periods* (n) | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·990 | 0·980 | 0·971 | 0·962 | 0·952 | 0·943 | 0·935 | 0·926 | 0·917 | 0·909 | 1 |
| 2 | 0·980 | 0·961 | 0·943 | 0·925 | 0·907 | 0·890 | 0·873 | 0·857 | 0·842 | 0·826 | 2 |
| 3 | 0·971 | 0·942 | 0·915 | 0·889 | 0·864 | 0·840 | 0·816 | 0·794 | 0·772 | 0·751 | 3 |
| 4 | 0·961 | 0·924 | 0·888 | 0·855 | 0·823 | 0·792 | 0·763 | 0·735 | 0·708 | 0·683 | 4 |
| 5 | 0·951 | 0·906 | 0·863 | 0·822 | 0·784 | 0·747 | 0·713 | 0·681 | 0·650 | 0·621 | 5 |
| 6 | 0·942 | 0·888 | 0·837 | 0·790 | 0·746 | 0·705 | 0·666 | 0·630 | 0·596 | 0·564 | 6 |
| 7 | 0·933 | 0·871 | 0·813 | 0·760 | 0·711 | 0·665 | 0·623 | 0·583 | 0·547 | 0·513 | 7 |
| 8 | 0·923 | 0·853 | 0·789 | 0·731 | 0·677 | 0·627 | 0·582 | 0·540 | 0·502 | 0·467 | 8 |
| 9 | 0·941 | 0·837 | 0·766 | 0·703 | 0·645 | 0·592 | 0·544 | 0·500 | 0·460 | 0·424 | 9 |
| 10 | 0·905 | 0·820 | 0·744 | 0·676 | 0·614 | 0·558 | 0·508 | 0·463 | 0·422 | 0·386 | 10 |
| 11 | 0·896 | 0·804 | 0·722 | 0·650 | 0·585 | 0·527 | 0·475 | 0·429 | 0·388 | 0·305 | 11 |
| 12 | 0·887 | 0·788 | 0·701 | 0·625 | 0·557 | 0·497 | 0·444 | 0·397 | 0·356 | 0·319 | 12 |
| 13 | 0·879 | 0·773 | 0·681 | 0·601 | 0·530 | 0·469 | 0·415 | 0·368 | 0·326 | 0·290 | 13 |
| 14 | 0·870 | 0·758 | 0·661 | 0·577 | 0·505 | 0·442 | 0·388 | 0·340 | 0·299 | 0·263 | 14 |
| 15 | 0·861 | 0·743 | 0·642 | 0·555 | 0·481 | 0·417 | 0·362 | 0·315 | 0·275 | 0·239 | 15 |

| (n) | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·901 | 0·893 | 0·885 | 0·877 | 0·870 | 0·862 | 0·855 | 0·847 | 0·840 | 0·833 | 1 |
| 2 | 0·812 | 0·797 | 0·783 | 0·769 | 0·756 | 0·743 | 0·731 | 0·718 | 0·706 | 0·694 | 2 |
| 3 | 0·731 | 0·712 | 0·693 | 0·675 | 0·658 | 0·641 | 0·624 | 0·609 | 0·593 | 0·579 | 3 |
| 4 | 0·659 | 0·636 | 0·613 | 0·592 | 0·572 | 0·552 | 0·534 | 0·516 | 0·499 | 0·482 | 4 |
| 5 | 0·593 | 0·567 | 0·543 | 0·519 | 0·497 | 0·476 | 0·456 | 0·437 | 0·419 | 0·402 | 5 |
| 6 | 0·535 | 0·507 | 0·480 | 0·456 | 0·432 | 0·410 | 0·390 | 0·370 | 0·352 | 0·335 | 6 |
| 7 | 0·482 | 0·452 | 0·425 | 0·400 | 0·376 | 0·354 | 0·333 | 0·314 | 0·296 | 0·279 | 7 |
| 8 | 0·434 | 0·404 | 0·376 | 0·351 | 0·327 | 0·305 | 0·285 | 0·266 | 0·249 | 0·233 | 8 |
| 9 | 0·391 | 0·361 | 0·333 | 0·308 | 0·284 | 0·263 | 0·243 | 0·225 | 0·209 | 0·194 | 9 |
| 10 | 0·352 | 0·322 | 0·295 | 0·270 | 0·247 | 0·227 | 0·208 | 0·191 | 0·176 | 0·162 | 10 |
| 11 | 0·317 | 0·287 | 0·261 | 0·237 | 0·215 | 0·195 | 0·178 | 0·162 | 0·148 | 0·135 | 11 |
| 12 | 0·286 | 0·257 | 0·231 | 0·208 | 0·187 | 0·168 | 0·152 | 0·137 | 0·124 | 0·112 | 12 |
| 13 | 0·258 | 0·229 | 0·204 | 0·182 | 0·163 | 0·145 | 0·130 | 0·116 | 0·104 | 0·093 | 13 |
| 14 | 0·232 | 0·205 | 0·181 | 0·160 | 0·141 | 0·125 | 0·111 | 0·099 | 0·088 | 0·078 | 14 |
| 15 | 0·209 | 0·183 | 0·160 | 0·140 | 0·123 | 0·108 | 0·095 | 0·084 | 0·074 | 0·065 | 15 |

**Annuity Table**

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

*Discount rate (r)*

| *Periods* (n) | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·990 | 0·980 | 0·971 | 0·962 | 0·952 | 0·943 | 0·935 | 0·926 | 0·917 | 0·909 | 1 |
| 2 | 1·970 | 1·942 | 1·913 | 1·886 | 1·859 | 1·833 | 1·808 | 1·783 | 1·759 | 1·736 | 2 |
| 3 | 2·941 | 2·884 | 2·829 | 2·775 | 2·723 | 2·673 | 2·624 | 2·577 | 2·531 | 2·487 | 3 |
| 4 | 3·902 | 3·808 | 3·717 | 3·630 | 3·546 | 3·465 | 3·387 | 3·312 | 3·240 | 3·170 | 4 |
| 5 | 4·853 | 4·713 | 4·580 | 4·452 | 4·329 | 4·212 | 4·100 | 3·993 | 3·890 | 3·791 | 5 |
| 6 | 5·795 | 5·601 | 5·417 | 5·242 | 5·076 | 4·917 | 4·767 | 4·623 | 4·486 | 4·355 | 6 |
| 7 | 6·728 | 6·472 | 6·230 | 6·002 | 5·786 | 5·582 | 5·389 | 5·206 | 5·033 | 4·868 | 7 |
| 8 | 7·652 | 7·325 | 7·020 | 6·733 | 6·463 | 6·210 | 5·971 | 5·747 | 5·535 | 5·335 | 8 |
| 9 | 8·566 | 8·162 | 7·786 | 7·435 | 7·108 | 6·802 | 6·515 | 6·247 | 5·995 | 5·759 | 9 |
| 10 | 9·471 | 8·983 | 8·530 | 8·111 | 7·722 | 7·360 | 7·024 | 6·710 | 6·418 | 6·145 | 10 |
| 11 | 10·37 | 9·787 | 9·253 | 8·760 | 8·306 | 7·887 | 7·499 | 7·139 | 6·805 | 6·495 | 11 |
| 12 | 11·26 | 10·58 | 9·954 | 9·385 | 8·863 | 8·384 | 7·943 | 7·536 | 7·161 | 6·814 | 12 |
| 13 | 12·13 | 11·35 | 10·63 | 9·986 | 9·394 | 8·853 | 8·358 | 7·904 | 7·487 | 7·103 | 13 |
| 14 | 13·00 | 12·11 | 11·30 | 10·56 | 9·899 | 9·295 | 8·745 | 8·244 | 7·786 | 7·367 | 14 |
| 15 | 13·87 | 12·85 | 11·94 | 11·12 | 10·38 | 9·712 | 9·108 | 8·559 | 8·061 | 7·606 | 15 |

| (n) | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·901 | 0·893 | 0·885 | 0·877 | 0·870 | 0·862 | 0·855 | 0·847 | 0·840 | 0·833 | 1 |
| 2 | 1·713 | 1·690 | 1·668 | 1·647 | 1·626 | 1·605 | 1·585 | 1·566 | 1·547 | 1·528 | 2 |
| 3 | 2·444 | 2·402 | 2·361 | 2·322 | 2·283 | 2·246 | 2·210 | 2·174 | 2·140 | 2·106 | 3 |
| 4 | 3·102 | 3·037 | 2·974 | 2·914 | 2·855 | 2·798 | 2·743 | 2·690 | 2·639 | 2·589 | 4 |
| 5 | 3·696 | 3·605 | 3·517 | 3·433 | 3·352 | 3·274 | 3·199 | 3·127 | 3·058 | 2·991 | 5 |
| 6 | 4·231 | 4·111 | 3·998 | 3·889 | 3·784 | 3·685 | 3·589 | 3·498 | 3·410 | 3·326 | 6 |
| 7 | 4·712 | 4·564 | 4·423 | 4·288 | 4·160 | 4·039 | 3·922 | 3·812 | 3·706 | 3·605 | 7 |
| 8 | 5·146 | 4·968 | 4·799 | 4·639 | 4·487 | 4·344 | 4·207 | 4·078 | 3·954 | 3·837 | 8 |
| 9 | 5·537 | 5·328 | 5·132 | 4·946 | 4·772 | 4·607 | 4·451 | 4·303 | 4·163 | 4·031 | 9 |
| 10 | 5·889 | 5·650 | 5·426 | 5·216 | 5·019 | 4·833 | 4·659 | 4·494 | 4·339 | 4·192 | 10 |
| 11 | 6·207 | 5·938 | 5·687 | 5·453 | 5·234 | 5·029 | 4·836 | 4·656 | 4·486 | 4·327 | 11 |
| 12 | 6·492 | 6·194 | 5·918 | 5·660 | 5·421 | 5·197 | 4·988 | 4·793 | 4·611 | 4·439 | 12 |
| 13 | 6·750 | 6·424 | 6·122 | 5·842 | 5·583 | 5·342 | 5·118 | 4·910 | 4·715 | 4·533 | 13 |
| 14 | 6·982 | 6·628 | 6·302 | 6·002 | 5·724 | 5·468 | 5·229 | 5·008 | 4·802 | 4·611 | 14 |
| 15 | 7·191 | 6·811 | 6·462 | 6·142 | 5·847 | 5·575 | 5·324 | 5·092 | 4·876 | 4·675 | 15 |

## CA3.5: ADVANCED MANAGEMENT ACCOUNTINGSUGGESTED SOLUTIONS

### SOLUTION ONE

(a) (i) The expected performance of the two divisions will be measured by:

1. ROI
2. Residual income; and
3. Net present value.

**Assumptions**

1. The plant and equipment will be depreciated on a straight line basis over eight years to a nil residual value.
2. ROI will be measured as average annual profit divided by average investment.
3. The notional interest for a residual income calculation will be 18% of the average investment (i.e. interest charge p.a.)

**ROI**

| | | TD | MD |
|---|---|---|---|
| | | K'm | K'm |
| Total expected net cash flows | Year 1 | 3.8 | 6.40 |
| | Years2-8 | 40.60 | 58.80 |
| | | 44.40 | 65.20 |
| Less: depreciation | | (20.00) | (30.00) |
| Total expected net profit | | 24.40 | 35.20 |

| | K'm | K'm |
|---|---|---|
| Average expected annual net profit(÷8) | 3.05 | 4.4 |
| Average investment (20/2/30/2) | 10 | 15 |
| Expected ROI | **30.5%** | **29.3%** |

**Residual income**

| | K'm | K'm |
|---|---|---|
| Average expected annual net profit | 3.05 | 4.4 |
| Imputed interest 18% x10/15 | (1.80) | (2.7) |
| Expected average RI | **+1.25** | **+1.7** |

**Net present value**

| | | | TD | | MD | |
|---|---|---|---|---|---|---|
| Item | Year | Discount factor at 18% | Cash flow K'm | Present value K'm | Cash flow K'm | Present value K'm |
| Equipment cost | 0 | 1.000 | (20.0) | (20.0) | (30.0) | (30.0) |
| Net cash flow | 1 | 0.847 | 3.80 | 3.2 | 6.4 | 5.4 |
| Net cash flow pa | 2-8 | *3.231 | 5.8 | 18.7 | 8.4 | 27.1 |
| Net present | | | | | | |
| Value | | | | **+1.90** | | **+2.5** |

(*4.078-0.847)

Both investments appear worthwhile. TD offers a ROI of 30.5%, slightly higher than the 29.3% of MD, but both are well in excess of the hurdle rate of 18%. MD being a larger investment, offers a higher RI but the expected RI of both investments is positive. The expected NPV of both projects is also positive.

(ii) The actual year 1 performance of both divisions cannot be measured by DCF, because the projects are only one year old. It is possible, however, to measure their ROI and residual income. It is important to remember that year 1 performance should be worse than the average annual performance over an eight year period, because:
1. Year one cash flows will be lower than in years 2-8; and
2. The value of the investment declines overtime, thus increasing the ROI and residual income year by year.

**ROI**

| | | TD | | | MD | | |
|---|---|---|---|---|---|---|---|
| | K'm | K'm | K'm | | K'm | K'm | K'm |
| | Expected | Actual | Variance | | Expected | Actual | Variance |
| Net cashflow | 3.8 | 3.895* | 0.095(F) | | 6.4 | 6.24** | 0.16(A) |
| Less: depreciation | (2.5) | (2.5) | 0.000 | | (3.75) | (3.75) | 0.000 |
| Net Profit | 1.3 | 1.395 | 0.095(F) | | 2.65 | 2.49 | 0.16(A) |
| **ROI**(1.3/18.75;1.4/18.75)<br>ROI(2.65/28.12;2.49/28.12) | **6.9%** | **7.5%** | 0.6%(F) | | **9.4%** | **8.8%** | **0.6(A)** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**3.8 x 1.025 = K3.895m; **6.4x0.975 = K6.24m*

**Residual Income**

| | | TD | | | MD | | |
|---|---|---|---|---|---|---|---|
| | K'm | K'm | K'm | | K'm | K'm | K'm |
| | Expected | Actual | Variance | | Expected | Actual | Variance |
| Net cashflow | 1.3 | 1.395 | 0.095(F) | | 2.65 | 2.49 | 0.16(A) |
| Imputed interest(18%x18.75/28.12) | (3.375) | (3.375) | 0.000 | | (5.062) | (5.062) | 0.000 |
| **RI** | **(2.075)** | **(1.98)** | **0.095(F)** | | **(2.412)** | **(2.572)** | **0.16(A)** |
| | | | | | | | |

**Combined Results**

| | **Expected** | | **Actual** | **Variance** |
|---|---|---|---|---|
| **ROI[**1.3+2.65/(18.8+28.1)] | **8.4%** | **[**1.395+2.49/46.9**]** | **8.3%** | **0.1%(A)** |
| **RI**(2.075+2.412)(K'm) | **(4.487)** | **(1.98+2.572)** | **(4.552)** | **0.065(A)** |

Workings for Average Year 1 Investment

| | TD | MD |
|---|---|---|
| | K'm | K'm |
| Investment | | |
| At start of year 1 | 20.0 | 30.00 |
| Year 1 depreciation | (2.5) | (3.75) |
| At end of year 1 | 17.5 | 26.25 |
| **Average year 1 investment[20+17.5/2/30+26.25/2]** | **18.75** | **28.12** |

*Comments:*

Neither division shows a positive residual income in year1 but cash flows are expected to increase from year 2 onwards. The imputed interest charge will also decrease as the investment declines in later years. TD shows a favourable variance whereas MD shows an adverse variance. Overall budgeted net cash flows are K10.2m (K6.4m + K3.8m) and actual cash flows are K10.135m (K3.895m +K6.24). On the basis of the accounting information it would appear that TD has performed better than expected and the performance of MD Ltd is worse than expected.

However, an evaluation based on activities for one year can be limited and the focus should be on future results that can be expected because of present actions. Cashflows for the company as a whole has declined because C Ltd obtained an increase in market share at the expense of MD. This was achieved because C Ltd bought from TD whereas MD bought from outside the group. Therefore the cashflows for the company as a whole have declined because MD and TD did not trade with each other. In other words TD has gained at the expense of MD. This decision should be reviewed. There is clearly a lack of collaboration between the managers of TD and MD.

( a) (iii)

It is often suggested that many of the problems of 'traditional' divisional performance measurement could be avoided if an approach using discounted cash flow techniques could be used instead. In essence this would measure the difference between the NPV of forecast future cash flows at the beginning of a period and the NPV of forecast flows at the end of the period.

The **advantages** for the TM group for this approach are that it *emphasises long-termism*, *considers likely events in the future* (as opposed to reflecting past glories, as measures like ROI do) and *that leads to 'optimal behaviour'* - correct investment decisions and so on.

The **problems** for the TM group with this approach relate to the difficulty of using it in practice.

1. Forecasts may not be accurate, either because of poor predictions, unexpected future events or manipulation of figures by managers.
2. It will be exceedingly difficult to determine what cost of capital to use. Again this could be subject to manipulation.
3. Managers tend to have a mental block when asked to accept complicated mathematical concepts. It may be difficult to demonstrate that the measure is fair. *ks)*

b) ( i) Impact on profits of A Division If B division buys from external supplier

| | K'000 |
|---|---|
| • External sales revenue 6,000 + 2,500Kgs = 8,500kgs x K22.5= | 191,250 |
| • Internal sales revenue 7,500kg x K20 | 150,000 |
| Total revenue | 341,250 |
| | |

| | |
|---|---|
| Less: variable costs 16,000kgxK11/kg | (176,000) |
| Total contribution | 165,250 |
| Less: fixed costs | (50,000) |
| Total profits | K115,250 |

ALTERNATIVELY
Simply on an incremental basis :
Lost combination K20-K11=K9/kg

Sales revenue gained =
(K22.5-K11.0)= K11.5/kg

Net gain = K11.5-K9 = 2.5/kg
X 2,500kg
Extra sales
= K**6, 250**

**Conclusion**: profits will increase from K109, 000 to K115, 250, i.e. division A's profits will increase by **K6, 250**.

(b) (ii) **Impact on profits of B division**

- Reduced variable costs (i.e from K20 to K17.5)=K2.5/kg
- Total saving =K2.5/kg x 2,500=K6,250
- Division B's profits will improve by **K6,250.**

(b ) (iii) **Impact on profits of the TM group**

There will be extra revenue from increased sales and increased variable costs due to buying from external suppliers

- Increased revenue: 2,500kg x K22.5/kg = K56,250
- Less incremental VC: 2,500kg x K17.5/kg = 43,750

= **K12,500**

This is equal to the improvements in profits in the two divisions, i.e. A's improved profits plus B's improved profits = K6, 250+K6, 250 = K12, 500.

**Conclusion**:

- Group profits will increase by K12,500
- It will, therefore, be in the best interest of the TM group if all the intermediate products are brought from the external supplier

(c) (i) Behavioural consequences of transfer policies

- **Marginal cost transfer price**
  - If the marginal cost is used as a transfer price, D division will not cover its fixed costs and profit
  - All profits will be made by A division
  - D division may not like to make internal transfers as a result.
  - It will sell as much as possible on the external market
  - This would reduce profits because higher costs between 15% to 22.5% will come into the cost structure.
  - To maintain TM Plc profits head office may impose a quota of internal transfers on C division.

(c) (ii)

- **Full cost plus 45%**

- D division will cover its fixed costs and make profits. It will transfer as many cakes internally.

- But A division can get cakes cheaply in the range 15% - 22.5% and so will buy externally if the market demand still exists.

- TM plc may have to improve internal transfers to prevent overall profits being negatively impacted

**SOLUTION TWO**

| PROBLEM | SOLUTION A EXPLANATION | SOLUTION FOR B<br>(HOW THEY CAN BE RESLOVED BY THE PROJECT MANAGER |
|---|---|---|
| **LEADERSHIP** | The Director seems to be autocratic which may not be appropriate for experts | The director must use the participatory leadership style because he is dealing with fellow experts who will be able to reason and contribute the decision that is being made |
| **LACK OF COMMUNICATION** | Cancelling of existing projects in Zimbabwe can clearly lead to frustrations to members who have given the best on the project | He should be discussing issues with everyone before making final decisions<br>Conduct meetings or platforms where he can explain in detail why a project should be abandoned |
| **Lack of Project updates** | If projects are being cancelled without being told why, this will cause members not to work harder as they may feels that their efforts are not being respected | Introduce team meetings that will be a platform to update to all members why decisions are made like that. |
| **Lack of Appreciation for Senior members** | The IT Director does not seem to care for the expertise from senior members and as such he risks losing qualified staff . | Introduce a system that appreciate each person's contribution. The IT Director must make a deliberate policy to ensure there is team work by all team members on each project. |

**c) the aim of post completion audit is:**

1) To report as to whether the objective of the project is being met.
2) To review the actual costs and benefits of the new project or system.
3) To learn for any mistakes made and so that they can avoided in the future,
4) To assess the overall change process and project management quality,

The review usually is conducted immediately after the project is completed while records are still fresh in the memory. It should not be too close but between one month and one year after starting the project.

**SOLUTION THREE**

**Report**

To: Managing Director

From: Management Accountant

Subject: Performance Measures

Date: 30 May, 2023

**Introduction**

Further to your request, I consider in this report our existing performance measures, explanations of the balanced scorecard and benchmarking approaches and how our performances could improve if we introduced these alternative performance measures.

**(a) Existing performance measures**

Our existing performance measures focus attention on our profitability and, therefore, measure our financial performance only.

Targets at AMES Ltd are set in the form of budget which is based upon increasing our performance incrementally by a percentage which takes into account inflation and activity growth over the previously budgeted ones. This subjective increase does not really reflect the change in the economic environment in which AMES Ltd operates. Consequently, the budget may become suboptimal. It also suggests the company's sole performance indicator is one that focuses on financial aspects. But there are many other aspects that contribute towards the company's performance which need to be monitored. Financial performance measures are backward looking. AMES Ltd also need forward looking measures such as quality, customer retention, repeat business, etc to get a rounded view of its performance.

(b) **The Balanced Scorecard**

The balanced scorecard is an approach to the provision of information to management to assist strategic policy formulation and achievement. It emphasizes the need to provide the user with a set of information which addresses all relevant areas of performance in an objective and unbiased fashion.

The balanced score card comprises four perspectives: financial perspective, customer perspective, internal business perspective and innovation and learning perspective.

The financial perspective considers how we look to the shareholders of the company and thus focuses on measures of short- and long-term profitability and growth. The present performance measures of profitability is very much focused on financial measures, but they should not be the only measures that are used. Forward looking measures are also very critical to AMES Ltd's performance.

The customer perspective considers how the customers see AMES Ltd. This is important because if our customers are pleased with the service they receive, then AMES Ltd will continue to be their preferred supplier and hopefully they will recommend it to their business contact group so that it obtains more business. Measures that could be used include the number of customers referrals received, number of customer complaints, repeat business, the proportions of quotations received by the customers, etc.

The internal business perspective monitors what AMES Ltd can excel at if it is to succeed. This perspective looks at its ability to be up to date and design new communications systems in an efficient manner. There is need to compare our process systems with those recommended by our competitor and measure the time taken to introduce new process systems that take advantage of technological developments. Other measures include rejected rates, customer returns, number of product innovations, delivery time, on time performance, etc.

The innovation and learning perspective considers whether we can continue to improve and create value by the advice that we get from our customers. Measures that could be used in this area include our amount of expenditure on training per employee, training programme hours per employee, job retention, employee satisfaction, knowledge of product offerings, etc.

The overall concept of balanced scorecard is that all four types of performance measures are equally important to ensure the continuing success of AMES Ltd.

(c) **Benchmarking**

There are two types of benchmarking: intra group and inter-industry.

Intra group benchmarking involves groups of companies in the same industry (e.g. FedEx, DHL, Zampost) agreeing to pool data on their processes. Best practices are identified from this pooled data and as a result the performance of all the group companies can improve.

Inter-industry benchmarking is used by non-competing businesses that have similar processes. AMES Ltd could consider using this type of benchmarking by working with other express courier businesses who provide services other than those connected with delivery business, such as transport and hospitality businesses.

Benchmarking enables a company to improve its performance by learning best practice from other organisations. Benchmarking establishes targets and competitors and through their use relative levels of performance (particularly areas of underperformance) can be identified. By the adoption of identified best practices it is hoped that performance will improve.

**Conclusion**

Should you need further clarifications, please do not hesitate to contact me.

**Signed**: Management Accountant

**SOLUTION FOUR**

(a) Contradictory mission statement

The mission statement of IEMC Ltd is to maximize profits for its shareholders, but will not go beyond certain lengths to do so. In other words, a recognition of its wider responsibilities might occasionally limit shareholders' profits.

There is no doubt that the interests of shareholders, narrowly defined as profit maximisation, and those of society as a whole, may be in conflict: the emeralds mine, is an opportunity for profit, with contaminated lakes being left behind.

However, the phrase 'while recognizing its wider responsibilities to society' is too vague. If this responsibility is recognized, the following may be the result:

i) Abandoning the project;
ii) Providing technology to clean up the site and manage the waste ;
iii) Compensating the local residents.

Furthermore, it should not be supposed that recognition of wider social responsibilities is synonymous with environmental best practice. After all, the mine will be a source of income for the Zambian government, which might be spent on other desirable social objectives. In fact, some countries are prepared to accept some environmental degradation in return for investment, and the jobs and wealth this can bring. This is more so because operations are in remote areas of Lufwanyama and very few people would be affected: more will benefit from government income received from royalties and corporation tax.

(b) Social responsibility and strategic planning

Ensuring that social responsibilities are routinely considered in strategic decisions is no easy task. For example, closing down a factory causes unemployment: to what extent should management delay the closure for fear of unemployment to locals. Ways of recognising social responsibilities in strategic planning decisions include:

i) Responsibilities must be defined, and here there is enormous scope for argument. Some hold that a business's only sole responsibility is to create wealth for its investors: such wealth enters the economy as a whole. After all, a business is a business and not a charity. Others hold that businesses affect a variety of stakeholders.

   One way of recognising social impact is to use the idea of externalities. Externalities are benefits enjoyed by the business which it does not pay for, or costs imposed by the business's activities on others, for which they are not reimbursed (e.g. noise pollution from the construction trucks).
   Such externalities can be at least considered, and perhaps incorporated in project evaluation. But such costs are very hard to estimate.

ii) IEMC needs also to use ideas of social responsibility in its environmental analysis. After all, it may be wise to make a virtue out of necessity, as good practice might be forced on business by legislation. What pressure groups like Lufwanyama local villagers say now may enter the legislative agenda in parliament in future.

iii) IEMC can use external consultants to enable the company to incorporate issues of social responsibility in strategic decision making process.

(c) Conflicts of objectives

There are a number of ways of dealing with conflicts of objectives in the case of IEMC Ltd.

i. A hierarchy of objectives can be set up, such that where there is a conflict certain objectives take priority. Profit would seem to be the primary objective but then this would make it impossible for social issues to be considered at all as they will always be subservient to the profit motive.

ii. The hierarchy can be modified, so that other objectives, in certain defined cases, take priority. For example, in most businesses the pursuit of profit is a primary objective constrained by the fact that profits should be earned lawfully.

***iii.*** Ranking and scoring methods can be used in a variety of cases, to assess the impact of different strategies on a number of objectives. This can ensure that social issues are included in the strategy selection process, and in any weighting for any particular strategy.

(d) The ethical issues in mining emeralds are problematic, as several value systems might be in conflict.

i. The mine will affect the people leaving in Luwanyama. To what extent should their interests be considered? After all, the company will have obtained permission to mine from the Ministry of Mines. In no country in the world is an individual's right to property inalienable: in Zambia, for example, the government can purchase property compulsorily (e.g. for road building schemes) or can impose limitations to the use of certain property. In the mining case, the money that will be paid in tax might be regarded by the country as sufficient compensation for the environmental degradation for a remote area and for discomfort for a few people.

*An ethical issue, therefore, relates to the compensation offered to the local residents.*

ii. Non-renewable resources. The extraction of emeralds is permanent, and subject to recycling, cannot be used again. What is the effect of this on the environment? But the same question can be asked of any extractive industry, not just emerald mining.
*The issue is whether non-renewable resources are used efficiently. Are alternatives to be developed?*

iii. Has the effect of pollution been considered? Will the polluted lakes cause health problems to the local people of Lufwanyama and blight the land? Or is the area unlikely to be inhabited? Does it contain rare and endangered animals species which will suffer from the pollution? There may be no real reason to clean up at all, if the mine is in the wilderness, and if no one is going to suffer from the pollution. Money spent on cleaning up could perhaps be spent better elsewhere.

iv. Irrespective of the substantive issues, ethical questions also affect the conduct of the negotiations itself. In many respects, these are easier to identify.
   1) Has IEMC been honest in its dealings with local residents and negotiators? In other words, has it made the best possible estimate of the pollution caused, in order to fix a suitable compensation?
   2) Has the IEMC Ltd tried to gain acceptance of its plans by immoral means such as bribery or other 'dirty tricks' of corruption, unacceptable government lobbying?

(e) The two aspects of understanding stakeholders is by power and interest influences.

The local community is a highly interested group in the proposed mining project because of the possible job creation, pollution and relocation. However, they have **little power** to stop the project.

IEMC Ltd's response to them is to keep them **well informed** because without formal notification, information will spread via grape vine. This information may be inaccurate and cause undue worries. So although they have little power, the high interest can lead to them influencing key players such as their member of parliament and the mayor of Lufwanyama district.

**SOLUTION FIVE**

**Part a**

Trade Queens Limited's information system should include an integrated set of systems for collecting, storing and processing data and providing information to support decision making in the company. Therefore, the following types of information systems are available for the company;

1. Transaction processing systems which collect source data about each transaction which can be reported but provide little usable management information
2. Management information systems (MIS) which draw data from transaction processing systems and produce standard reports, often transferred to spreadsheets for further analysis
3. Enterprise resource planning (ERP) systems which take a whole of business approach by capturing accounting, operational, customer and supplier data
4. Strategic enterprise management (SEM) systems which support strategic planning by applying tools such as shareholder value management, activity-based management and Balanced Scorecard

**Part b**

The relevance of information system is important for companies to operate efficiently and produce timely and relevant information. Many organisations rarely optimise their information system, maybe because the system is outdated or not appropriate for the company. In the case of Trade Queens Limited, the following information systems would be appropriate;

1. Trade Queens currently uses an MRPII system, an earlier form of ERP system. As such, it is capable of sophisticated control of raw materials, production and costs, but does not support the strategic and decision support approach of SEM and EIS systems
2. Trade Queens should move towards an SEM or EIS system capable of meeting management's information requirements by providing integrated operational, financial, customer and supplier information
3. An SEM system enables the organisation to answer questions like: Which customers deliver most profit? Which business units contribute most shareholder value? What are the real performance drivers? How well are we performing relative to our competitors?

**Part c**

The environment in which Trade Queen Limited operates has changed and now there is need for more accurate, timely and cost effective information to support decision making and compete effectively. In this regard, the current management information system including the management accounting system is not adequate considering the demands of the new business environment. Some of the factors that make the current system not suitable include;

1. Trade Queen's management accounting system relies on budgeting, standard costs, overhead allocation, detailed time and material recording and variance analysis. While these accounting controls are generally accepted by accountants, they can be criticized as they apply to the business needs.
2. managers may set low targets, manipulating results so that targets are achieved (particularly where this is linked with performance bonuses), and reducing efforts once targets are achieved

3. An activity-based costing approach might eliminate the subsidisation problem and improve pricing, sales mix and profitability by allocating costs to cost pools and allocating overheads to products from those cost pools based on the consumption of overheads by each product as measured by cost drivers

With the identified weaknesses of the current system, there is need to improve the system to make it more integrated and eliminate waste in inventory. The system should be able to support modern inventory systems such as JIT to further reduce costs.

| | | |
|---|---|---|
| SOLUTION 5a: Explain four types of information system available to TQ Ltd | LO6: Evaluate information technology support for performance management | ✓ Transaction processing systems which collect source data about each transaction which can be reported but provide little usable management information<br>✓ Management information systems (MIS) which draw data from transaction processing systems and produce standard reports, often transferred to spreadsheets for further analysis<br>✓ Enterprise resource planning (ERP) systems which take a whole of business approach by capturing accounting, operational, customer and supplier data<br>✓ Strategic enterprise management (SEM) systems which support strategic planning by applying tools such as shareholder value management, activity-based management and Balanced Scorecard |
| SOLUTION 5b: Recommend with reasons the information system that would be appropriate for TQ Ltd | LO6: Evaluate information technology support for performance management | ✓ Trade Queens currently uses an MRPII system, an earlier form of ERP system. As such, it is capable of sophisticated control of raw materials, production and costs, but does not support the strategic and decision support approach of SEM and EIS systems<br>✓ Trade Queens should move towards an SEM or EIS system capable of meeting management's information |

| | | |
|---|---|---|
| | | requirements by providing integrated operational, financial, customer and supplier information<br>✓ A SEM system enables the organisation to answer questions like: Which customers deliver most profit? Which business units contribute most shareholder value? What are the real performance drivers? How well are we performing relative to our competitors? |
| SOLUTION 5c: Evaluate the relevance of the current management accounting system of TQ Ltd and how it could be improved | LO6: Evaluate information technology support for performance management | ✓ Trade Queen's management accounting system relies on budgeting, standard costs, overhead allocation, detailed time and material recording and variance analysis. While these accounting controls are generally accepted by accountants, they can be criticized as they apply to the business needs.<br>✓ managers may set low targets, manipulating results so that targets are achieved (particularly where this is linked with performance bonuses), and reducing efforts once targets are achieved<br>✓ An activity-based costing approach might eliminate the subsidisation problem and improve pricing, sales mix and profitability by allocating costs to cost pools and allocating overheads to products from those cost pools based on the consumption of overheads by each product as measured by cost drivers |

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 15 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

10. Formulae, Present Value, Annuity and normal distribution tables are attached at the end of the question paper.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

## SECTION A

**This question is compulsory and must be attempted.**

**QUESTION ONE - COMPULSORY**

MAB Mining Plc, a multinational mining company involved in mining and exploration is considering making a new investment in Emeralds Minerals Ltd. The investment will involve acquiring 100% of Emeralds Minerals Ltd's shareholding. Alternatively, MAB mining Plc can invest in a project that will provide a Net Present Value (NPV) of K4,150 million.

Emerald Minerals has provided the following forecasts for the first year:

| S/n | Description | Amount (K'million) |
|---|---|---|
| 1 | Capital expenditure to replace existing non-current assets | 400 |
| 2 | Increase in working capital | 210 |
| 3 | Interest paid | 50 |
| 4 | Profit from operations | 2,150 |
| 5 | Ordinary share capital (Issued @ 25ngwee par value) | 1,900 |
| 6 | Amounts raised from fresh bond issue | 130 |

Emeralds Minerals Ltd expects the depreciation charge for the forthcoming year to be 75% of the capital expenditure, and loan repayment of 50% of the amount raised from bond issue. Corporate tax payable is 30%, payable in the year it is incurred. The company expects to pay dividend for the year of seven (7) ngwee per share. Management of Emeralds Minerals Ltd and prominent financial analysts strongly believes that the company's free cash flow to equity will grow at 8% per year for a period of four years after the first year. Thereafter, the free cash flow to equity's annual growth rate will be expected to be constant at 5% for the foreseeable future. Some financial analysts were quoted in the financial media newspaper as arguing that the free cash flow to equity is a better measure of dividend cover than the profit after tax.

MAB Mining Plc uses its current cost of capital to discount proposed investments. The company has an asset beta of 0.94 and equity premium of 6.5%. The government bonds have an interest rate of 12%. The after tax cost of debt is 13.5% and gearing level of 30% based on debt to equity ratio.

MAB Mining Plc exports 95% of its minerals to China and the management is worried about the currency risk due to the recent fluctuations in the exchange rate. MAB mining Plc receives payments through its head office in the US and it is expecting £90 million on 10 August. The spot today (12 June) is: $/£ 1.5626 – 1.5731

September $/£ futures are available. The price today (12 June) is $/£ 1.5681. Market financial analysts expect that the spot and the futures prices will both increase by 0.021 basis point.

**Required:**

(a) As a Financial Consultant, write a report to the management of MAB mining Plc advising on whether the investment in Emerald Minerals Ltd should be undertaken or not. Your report should include the following:

(i) Evaluation of the proposed investment using the free cash flow to equity; (16 marks)

(ii) Computation of the dividend cover using both the profit after tax and free cash flow to equity, and; (7 marks)

(iii) Explanation of whether free cash flow to equity is a better measure of dividend cover than the profit after tax. (6 marks)

(b) Explain the types of currency risk exposure that may be applicable to MAB Mining Plc. (6 marks)

(c) Show the outcome of using the currency futures contracts to hedge the currency risk exposure of MAB Mining Plc. (5 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any THREE (3) question.**

**QUESTION TWO**

BlueScale Ltd is a private company based in Kitwe and has been manufacturing irrigation equipment since 2018. The company is considering expanding with a new project which requires a K80 million investment in capital expenditure and net working capital. The Directors of the company have decided to raise the needed funds through a new issue of 10-year subordinated bonds to investors in Zambia. BlueScale uses a benchmark rate of 20% to appraise new projects. However, the Directors feel that this rate will not be appropriate for this project as its financing method is different from what has been used previously.

The company's financial statements with the expansion are projected as follows:

| | |
|---|---|
| Total assets | K150m |
| Long-term (Subordinate) debt | K80m |
| Earnings Before Interest and Taxes (EBIT) | K9.8m |
| Interest Expenses | K1.2m |
| Tax rate | 30% |
| Net Profit | K6.0m |

Earnings (Free Cash Flows) of the company for the past five (5) years are given below:

| Year | Earnings (K'm) |
|---|---|
| 2022 | 9.8 |
| 2021 | 9.2 |
| 2020 | 8.5 |
| 2019 | 8.1 |
| 2018 | 8.4 |

Directors intend to use the Kaplan Urwitz model for unlisted companies to assess the cost of debt as follows:

$$Y = 4.41 + 0.001\mathit{Size} + 6.40\mathit{Profitability} - 2.56\mathit{Debt} - 2.72\mathit{Leverage} + 0.006\mathit{Interest} - 0.53\mathit{CV}$$

Where:

(i) $Y$ is the credit score.
(ii) Size is measured by total assets.
(iii) Profitability is measured by the ratio of net profit to total assets.
(iv) Debt refers to the status of the debt stock; subordinated debt is assigned score 1, and unsubordinated debt is assigned score 0.

(v) Leverage is measured by the ratio of long-term debt to total assets.
(vi) Interest refers to interest cover, which is measured by earnings before interest and tax (EBIT) divided by the Interest Expense.
(vii) Coefficient of Variation (CV) is the relative standard deviation and measures volatility in earnings, and is given as 0.078.

Credit scores, the corresponding rating category and yield to maturity for 10-year corporate bonds are stated below:

| **Score (Y)** | **Rating category** | **Yield to maturity** |
|---|---|---|
| Y > 6.75 | AAA | 22.0% |
| Y = 5.20 – 6.75 | AA | 22.5% |
| Y = 3.29 – 5.19 | A | 23.2% |
| Y = 1.58 – 3.28 | BBB | 24.2% |
| Y = 0 – 1.57 | BB | 25.5% |

**Required:**

(a) Estimate the after tax cost of debt. (8 marks)

(b) Explain any three (3) criteria a credit rating agency could use to establish the credit rating of BlueScale Ltd. For each criterion, suggest one factor that can be used to assess it. (6 marks)

(c) Given that the fair market value of assets is K150 million and the face value of the 10 year bonds is K80 million. The risk-free rate is 10% and the volatility of asset value is 50%:

(i) Determine the value of the default probability using the Black-Scholes option pricing model. (3 marks)

(ii) Estimate the expected loss on the bonds if the recovery rate is 60%. (3 marks)

**[Total: 20 Marks]**

**QUESTION THREE**

(a) The Zambia Porcelain Tiles Group has received a request to submit a quotation for a proposed housing project for a client company in Saudi Arabia. The Chief Financial Officer (CFO) of the company has advised the Treasury Manager that in order to forecast future exchange rates to prepare the quotation, the interest rate differential between the two (2) countries should be used.

Explain any three (3) types of foreign exchange rate systems, and how such systems might affect the ability of financial managers to forecast exchange rates. (6 marks)

(b) The Treasury Manager of the Zambia Porcelain Tiles Group has received forecasts of exchange rates of the Kwacha against the Saudi Riyal (SAR) in two (2) years' time, from three (3) leading banks as follows:

| **Bank** | **Rate** (K/SAR) |
|---|---|
| Zanaco | 4.839 |
| FNB | 4.840 |
| Stanchart | 4.841 |

The current spot mid-rate is K4.840/SAR

The CFO estimates that the exchange rate in two years' time will be K6.304/SAR, since short-term interest rates are currently 10% in Zambia and 5% in Saudi Arabia.

**Required:**

(i) Prepare a brief report discussing the likely validity of the CFO's estimate, using Interest Rate Parity Theorem (IRPT). (4 marks)

(ii) Explain briefly whether or not forecasts of future exchange rates using current interest rate differentials are likely to be accurate. (3 marks)

**QUESTION FOUR**

Goodman Ltd has identified the following independent investment projects, all of which are divisible. No project can be delayed or performed on more than one occasion. The projected after tax net cash flows during the life of each project are as follows:

| **Year** | **0** | **1** | **2** | **3** | **4** |
|---|---|---|---|---|---|
| | **K'million** | **K'million** | **K'million** | **K'million** | **K'million** |
| Project A | (2.55) | (5.4) | 2.55 | 5.4 | 5.5 |
| Project B | (2.54) | (2.54) | 7.55 | - | - |
| Project C | (1.26) | 0.54 | 0.55 | 0.542 | 0.54 |

| | | | | | |
|---|---|---|---|---|---|
| Project D | - | (4.1) | (4.09) | 6.41 | 6.4 |
| Project E | (5.4) | 2.55 | (5.4) | 6.42 | 6.4 |
| Project F | (2.5) | (1.5) | 4.2 | 2.55 | - |

The only funds available at Year 0 and Year 1 are K5.51 million and K1.42 million respectively, together with any cash inflows from the projects undertaken at Year 0. Beginning from Year 2 onwards there is no restriction on the access to funds. Goodman Ltd has an equity beta of 1.12 and expected market rate of return is 20%. The interest rate for government bonds is 8%. The company has a 10% redeemable debt issued at par value of K1,000 with 5 years to maturity and trading at K1,100. The redemption value K1,290. The gearing level is 35% based on debt to equity ratio. Goodman Ltd uses its current cost of capital as a discount rate for all proposed investments and pays corporate tax at the rate of 15%.

**Required:**

(a) Estimate the current cost of capital for Goodman Ltd. (8 marks)

(b) (i) Formulate the NPV linear programme, and (11 marks)
(ii) Explain the implication of the linear objective function. (1 mark)

**[Total: 20 Marks]**

**QUESTION FIVE**

The COVID-19 is a severe acute respiratory syndrome caused by the new coronavirus that has emerged to be one of the greatest threats to the world affecting a total of 212 countries. The major transmitter of COVID-19 is human to human transmission posing a challenge to global commerce and trade. This is evidenced by travel restrictions, global commodity disruption, quarantine control measures, reduced business efficiency, reduction in profitability, company shut downs, and massive unemployment which has so much contributed to major world economic challenges and a broken chain in financial markets. Ultimately, the COVID-19 has affected the balance of payment of many countries across the globe including Zambia and operations of multinational companies.

**Required:**

(a) Explain the concept of balance of payments and the reason for having a balancing item on the account. (4 marks)

(b) Discuss the measures that a government might do to reduce a large, persistent, current account deficit on the balance of payments. (10 marks)

(c) Discuss the impact such measures taken by a government in (b) above might have on a multinational company operating in the country concerned. (6 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

## Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

*Discount rate (r)*

| *Periods* (n) | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·990 | 0·980 | 0·971 | 0·962 | 0·952 | 0·943 | 0·935 | 0·926 | 0·917 | 0·909 | 1 |
| 2 | 0·980 | 0·961 | 0·943 | 0·925 | 0·907 | 0·890 | 0·873 | 0·857 | 0·842 | 0·826 | 2 |
| 3 | 0·971 | 0·942 | 0·915 | 0·889 | 0·864 | 0·840 | 0·816 | 0·794 | 0·772 | 0·751 | 3 |
| 4 | 0·961 | 0·924 | 0·888 | 0·855 | 0·823 | 0·792 | 0·763 | 0·735 | 0·708 | 0·683 | 4 |
| 5 | 0·951 | 0·906 | 0·863 | 0·822 | 0·784 | 0·747 | 0·713 | 0·681 | 0·650 | 0·621 | 5 |
| 6 | 0·942 | 0·888 | 0·837 | 0·790 | 0·746 | 0·705 | 0·666 | 0·630 | 0·596 | 0·564 | 6 |
| 7 | 0·933 | 0·871 | 0·813 | 0·760 | 0·711 | 0·665 | 0·623 | 0·583 | 0·547 | 0·513 | 7 |
| 8 | 0·923 | 0·853 | 0·789 | 0·731 | 0·677 | 0·627 | 0·582 | 0·540 | 0·502 | 0·467 | 8 |
| 9 | 0·941 | 0·837 | 0·766 | 0·703 | 0·645 | 0·592 | 0·544 | 0·500 | 0·460 | 0·424 | 9 |
| 10 | 0·905 | 0·820 | 0·744 | 0·676 | 0·614 | 0·558 | 0·508 | 0·463 | 0·422 | 0·386 | 10 |
| 11 | 0·896 | 0·804 | 0·722 | 0·650 | 0·585 | 0·527 | 0·475 | 0·429 | 0·388 | 0·305 | 11 |
| 12 | 0·887 | 0·788 | 0·701 | 0·625 | 0·557 | 0·497 | 0·444 | 0·397 | 0·356 | 0·319 | 12 |
| 13 | 0·879 | 0·773 | 0·681 | 0·601 | 0·530 | 0·469 | 0·415 | 0·368 | 0·326 | 0·290 | 13 |
| 14 | 0·870 | 0·758 | 0·661 | 0·577 | 0·505 | 0·442 | 0·388 | 0·340 | 0·299 | 0·263 | 14 |
| 15 | 0·861 | 0·743 | 0·642 | 0·555 | 0·481 | 0·417 | 0·362 | 0·315 | 0·275 | 0·239 | 15 |

| (n) | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·901 | 0·893 | 0·885 | 0·877 | 0·870 | 0·862 | 0·855 | 0·847 | 0·840 | 0·833 | 1 |
| 2 | 0·812 | 0·797 | 0·783 | 0·769 | 0·756 | 0·743 | 0·731 | 0·718 | 0·706 | 0·694 | 2 |
| 3 | 0·731 | 0·712 | 0·693 | 0·675 | 0·658 | 0·641 | 0·624 | 0·609 | 0·593 | 0·579 | 3 |
| 4 | 0·659 | 0·636 | 0·613 | 0·592 | 0·572 | 0·552 | 0·534 | 0·516 | 0·499 | 0·482 | 4 |
| 5 | 0·593 | 0·567 | 0·543 | 0·519 | 0·497 | 0·476 | 0·456 | 0·437 | 0·419 | 0·402 | 5 |
| 6 | 0·535 | 0·507 | 0·480 | 0·456 | 0·432 | 0·410 | 0·390 | 0·370 | 0·352 | 0·335 | 6 |
| 7 | 0·482 | 0·452 | 0·425 | 0·400 | 0·376 | 0·354 | 0·333 | 0·314 | 0·296 | 0·279 | 7 |
| 8 | 0·434 | 0·404 | 0·376 | 0·351 | 0·327 | 0·305 | 0·285 | 0·266 | 0·249 | 0·233 | 8 |
| 9 | 0·391 | 0·361 | 0·333 | 0·308 | 0·284 | 0·263 | 0·243 | 0·225 | 0·209 | 0·194 | 9 |
| 10 | 0·352 | 0·322 | 0·295 | 0·270 | 0·247 | 0·227 | 0·208 | 0·191 | 0·176 | 0·162 | 10 |
| 11 | 0·317 | 0·287 | 0·261 | 0·237 | 0·215 | 0·195 | 0·178 | 0·162 | 0·148 | 0·135 | 11 |
| 12 | 0·286 | 0·257 | 0·231 | 0·208 | 0·187 | 0·168 | 0·152 | 0·137 | 0·124 | 0·112 | 12 |
| 13 | 0·258 | 0·229 | 0·204 | 0·182 | 0·163 | 0·145 | 0·130 | 0·116 | 0·104 | 0·093 | 13 |
| 14 | 0·232 | 0·205 | 0·181 | 0·160 | 0·141 | 0·125 | 0·111 | 0·099 | 0·088 | 0·078 | 14 |
| 15 | 0·209 | 0·183 | 0·160 | 0·140 | 0·123 | 0·108 | 0·095 | 0·084 | 0·074 | 0·065 | 15 |

**Annuity Table**

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

*Discount rate (r)*

| *Periods* (n) | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·990 | 0·980 | 0·971 | 0·962 | 0·952 | 0·943 | 0·935 | 0·926 | 0·917 | 0·909 | 1 |
| 2 | 1·970 | 1·942 | 1·913 | 1·886 | 1·859 | 1·833 | 1·808 | 1·783 | 1·759 | 1·736 | 2 |
| 3 | 2·941 | 2·884 | 2·829 | 2·775 | 2·723 | 2·673 | 2·624 | 2·577 | 2·531 | 2·487 | 3 |
| 4 | 3·902 | 3·808 | 3·717 | 3·630 | 3·546 | 3·465 | 3·387 | 3·312 | 3·240 | 3·170 | 4 |
| 5 | 4·853 | 4·713 | 4·580 | 4·452 | 4·329 | 4·212 | 4·100 | 3·993 | 3·890 | 3·791 | 5 |
| 6 | 5·795 | 5·601 | 5·417 | 5·242 | 5·076 | 4·917 | 4·767 | 4·623 | 4·486 | 4·355 | 6 |
| 7 | 6·728 | 6·472 | 6·230 | 6·002 | 5·786 | 5·582 | 5·389 | 5·206 | 5·033 | 4·868 | 7 |
| 8 | 7·652 | 7·325 | 7·020 | 6·733 | 6·463 | 6·210 | 5·971 | 5·747 | 5·535 | 5·335 | 8 |
| 9 | 8·566 | 8·162 | 7·786 | 7·435 | 7·108 | 6·802 | 6·515 | 6·247 | 5·995 | 5·759 | 9 |
| 10 | 9·471 | 8·983 | 8·530 | 8·111 | 7·722 | 7·360 | 7·024 | 6·710 | 6·418 | 6·145 | 10 |
| 11 | 10·37 | 9·787 | 9·253 | 8·760 | 8·306 | 7·887 | 7·499 | 7·139 | 6·805 | 6·495 | 11 |
| 12 | 11·26 | 10·58 | 9·954 | 9·385 | 8·863 | 8·384 | 7·943 | 7·536 | 7·161 | 6·814 | 12 |
| 13 | 12·13 | 11·35 | 10·63 | 9·986 | 9·394 | 8·853 | 8·358 | 7·904 | 7·487 | 7·103 | 13 |
| 14 | 13·00 | 12·11 | 11·30 | 10·56 | 9·899 | 9·295 | 8·745 | 8·244 | 7·786 | 7·367 | 14 |
| 15 | 13·87 | 12·85 | 11·94 | 11·12 | 10·38 | 9·712 | 9·108 | 8·559 | 8·061 | 7·606 | 15 |

| (n) | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·901 | 0·893 | 0·885 | 0·877 | 0·870 | 0·862 | 0·855 | 0·847 | 0·840 | 0·833 | 1 |
| 2 | 1·713 | 1·690 | 1·668 | 1·647 | 1·626 | 1·605 | 1·585 | 1·566 | 1·547 | 1·528 | 2 |
| 3 | 2·444 | 2·402 | 2·361 | 2·322 | 2·283 | 2·246 | 2·210 | 2·174 | 2·140 | 2·106 | 3 |
| 4 | 3·102 | 3·037 | 2·974 | 2·914 | 2·855 | 2·798 | 2·743 | 2·690 | 2·639 | 2·589 | 4 |
| 5 | 3·696 | 3·605 | 3·517 | 3·433 | 3·352 | 3·274 | 3·199 | 3·127 | 3·058 | 2·991 | 5 |
| 6 | 4·231 | 4·111 | 3·998 | 3·889 | 3·784 | 3·685 | 3·589 | 3·498 | 3·410 | 3·326 | 6 |
| 7 | 4·712 | 4·564 | 4·423 | 4·288 | 4·160 | 4·039 | 3·922 | 3·812 | 3·706 | 3·605 | 7 |
| 8 | 5·146 | 4·968 | 4·799 | 4·639 | 4·487 | 4·344 | 4·207 | 4·078 | 3·954 | 3·837 | 8 |
| 9 | 5·537 | 5·328 | 5·132 | 4·946 | 4·772 | 4·607 | 4·451 | 4·303 | 4·163 | 4·031 | 9 |
| 10 | 5·889 | 5·650 | 5·426 | 5·216 | 5·019 | 4·833 | 4·659 | 4·494 | 4·339 | 4·192 | 10 |
| 11 | 6·207 | 5·938 | 5·687 | 5·453 | 5·234 | 5·029 | 4·836 | 4·656 | 4·486 | 4·327 | 11 |
| 12 | 6·492 | 6·194 | 5·918 | 5·660 | 5·421 | 5·197 | 4·988 | 4·793 | 4·611 | 4·439 | 12 |
| 13 | 6·750 | 6·424 | 6·122 | 5·842 | 5·583 | 5·342 | 5·118 | 4·910 | 4·715 | 4·533 | 13 |
| 14 | 6·982 | 6·628 | 6·302 | 6·002 | 5·724 | 5·468 | 5·229 | 5·008 | 4·802 | 4·611 | 14 |
| 15 | 7·191 | 6·811 | 6·462 | 6·142 | 5·847 | 5·575 | 5·324 | 5·092 | 4·876 | 4·675 | 15 |

**Standard normal distribution table**

| | 0·00 | 0·01 | 0·02 | 0·03 | 0·04 | 0·05 | 0·06 | 0·07 | 0·08 | 0·09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 0·0 | 0·0000 | 0·0040 | 0·0080 | 0·0120 | 0·0160 | 0·0199 | 0·0239 | 0·0279 | 0·0319 | 0·0359 |
| 0·1 | 0·0398 | 0·0438 | 0·0478 | 0·0517 | 0·0557 | 0·0596 | 0·0636 | 0·0675 | 0·0714 | 0·0753 |
| 0·2 | 0·0793 | 0·0832 | 0·0871 | 0·0910 | 0·0948 | 0·0987 | 0·1026 | 0·1064 | 0·1103 | 0·1141 |
| 0·3 | 0·1179 | 0·1217 | 0·1255 | 0·1293 | 0·1331 | 0·1368 | 0·1406 | 0·1443 | 0·1480 | 0·1517 |
| 0·4 | 0·1554 | 0·1591 | 0·1628 | 0·1664 | 0·1700 | 0·1736 | 0·1772 | 0·1808 | 0·1844 | 0·1879 |
| 0·5 | 0·1915 | 0·1950 | 0·1985 | 0·2019 | 0·2054 | 0·2088 | 0·2123 | 0·2157 | 0·2190 | 0·2224 |
| 0·6 | 0·2257 | 0·2291 | 0·2324 | 0·2357 | 0·2389 | 0·2422 | 0·2454 | 0·2486 | 0·2517 | 0·2549 |
| 0·7 | 0·2580 | 0·2611 | 0·2642 | 0·2673 | 0·2704 | 0·2734 | 0·2764 | 0·2794 | 0·2823 | 0·2852 |
| 0·8 | 0·2881 | 0·2910 | 0·2939 | 0·2967 | 0·2995 | 0·3023 | 0·3051 | 0·3078 | 0·3106 | 0·3133 |
| 0·9 | 0·3159 | 0·3186 | 0·3212 | 0·3238 | 0·3264 | 0·3289 | 0·3315 | 0·3340 | 0·3365 | 0·3389 |
| 1·0 | 0·3413 | 0·3438 | 0·3461 | 0·3485 | 0·3508 | 0·3531 | 0·3554 | 0·3577 | 0·3599 | 0·3621 |
| 1·1 | 0·3643 | 0·3665 | 0·3686 | 0·3708 | 0·3729 | 0·3749 | 0·3770 | 0·3790 | 0·3810 | 0·3830 |
| 1·2 | 0·3849 | 0·3869 | 0·3888 | 0·3907 | 0·3925 | 0·3944 | 0·3962 | 0·3980 | 0·3997 | 0·4015 |
| 1·3 | 0·4032 | 0·4049 | 0·4066 | 0·4082 | 0·4099 | 0·4115 | 0·4131 | 0·4147 | 0·4162 | 0·4177 |
| 1·4 | 0·4192 | 0·4207 | 0·4222 | 0·4236 | 0·4251 | 0·4265 | 0·4279 | 0·4292 | 0·4306 | 0·4319 |
| 1·5 | 0·4332 | 0·4345 | 0·4357 | 0·4370 | 0·4382 | 0·4394 | 0·4406 | 0·4418 | 0·4429 | 0·4441 |
| 1·6 | 0·4452 | 0·4463 | 0·4474 | 0·4484 | 0·4495 | 0·4505 | 0·4515 | 0·4525 | 0·4535 | 0·4545 |
| 1·7 | 0·4554 | 0·4564 | 0·4573 | 0·4582 | 0·4591 | 0·4599 | 0·4608 | 0·4616 | 0·4625 | 0·4633 |
| 1·8 | 0·4641 | 0·4649 | 0·4656 | 0·4664 | 0·4671 | 0·4678 | 0·4686 | 0·4693 | 0·4699 | 0·4706 |
| 1·9 | 0·4713 | 0·4719 | 0·4726 | 0·4732 | 0·4738 | 0·4744 | 0·4750 | 0·4756 | 0·4761 | 0·4767 |
| 2·0 | 0·4772 | 0·4778 | 0·4783 | 0·4788 | 0·4793 | 0·4798 | 0·4803 | 0·4808 | 0·4812 | 0·4817 |
| 2·1 | 0·4821 | 0·4826 | 0·4830 | 0·4834 | 0·4838 | 0·4842 | 0·4846 | 0·4850 | 0·4854 | 0·4857 |
| 2·2 | 0·4861 | 0·4864 | 0·4868 | 0·4871 | 0·4875 | 0·4878 | 0·4881 | 0·4884 | 0·4887 | 0·4890 |
| 2·3 | 0·4893 | 0·4896 | 0·4898 | 0·4901 | 0·4904 | 0·4906 | 0·4909 | 0·4911 | 0·4913 | 0·4916 |
| 2·4 | 0·4918 | 0·4920 | 0·4922 | 0·4925 | 0·4927 | 0·4929 | 0·4931 | 0·4932 | 0·4934 | 0·4936 |
| 2·5 | 0·4938 | 0·4940 | 0·4941 | 0·4943 | 0·4945 | 0·4946 | 0·4948 | 0·4949 | 0·4951 | 0·4952 |
| 2·6 | 0·4953 | 0·4955 | 0·4956 | 0·4957 | 0·4959 | 0·4960 | 0·4961 | 0·4962 | 0·4963 | 0·4964 |
| 2·7 | 0·4965 | 0·4966 | 0·4967 | 0·4968 | 0·4969 | 0·4970 | 0·4971 | 0·4972 | 0·4973 | 0·4974 |
| 2·8 | 0·4974 | 0·4975 | 0·4976 | 0·4977 | 0·4977 | 0·4978 | 0·4979 | 0·4979 | 0·4980 | 0·4981 |
| 2·9 | 0·4981 | 0·4982 | 0·4982 | 0·4983 | 0·4984 | 0·4984 | 0·4985 | 0·4985 | 0·4986 | 0·4986 |
| 3·0 | 0·4987 | 0·4987 | 0·4987 | 0·4988 | 0·4988 | 0·4989 | 0·4989 | 0·4989 | 0·4990 | 0·4990 |

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

## CA3.6 ADVANCED FINANCIAL MANAGEMENT SUGGESTED SOLUTION

### SOLUTION ONE

| (a (i)) Free cash flow | K'million |
|---|---|
| | |
| Profit from operations (EBIT) | 2,150 |
| Deduct: Corporation tax (@ 30% thereon) | 645 |
| | 1,505 |
| Add back: Depreciation (non-cash amount) | 300 |
| Deduct: Capital expenditure to replace existing non-current assets | (400) |
| Increase in working capital | (210) |
| **Free cash flow** | **1,195** |
| Deduct: Loan repayments | (65) |
| Interest charges, net of tax [K50m x (1 – 0.3)] | (35) |
| Add: Proceeds of bond issue | 130 |
| **Free cash flow to equity** | **1,225** |

| Year | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| | K'm | K'm | K'm | K'm | K'm |
| FCFE | 1,225.00 | 1,323.00 | 1,428.84 | 1,543.15 | 1,666.60 |
| Discount@20% | 0.833 | 0.694 | 0.579 | 0.482 | 0.402 |
| **Present Values** | **1,020.43** | **918.16** | **827.30** | **743.80** | **669.97** |

Present Values 1 to 5 years = K4, 179.66m

Present Values (beyond 5yr) = $\frac{669.97(1+0.05)}{0.2 - 0.05}$ = K 4,689.79m

**K 8,869.45m**

**Cost of Capital**

0.94=Be x 0.7/0.7+0.3(1-0.3)

Be =1.222

Cost of Equity = 12% + 1.222(6.5%) =20%

(a)(ii)

| **Dividend Cover** | **K'million** |
|---|---|
| Profit from operations (EBIT) | 2,150 |
| Interest charges | (50) |
| Corporation tax | (630) |
| **Profit after tax (i.e. Earnings after interest and tax)** | **1,470** |

Number of Shares = K1,900m ÷ 0.25 = 7,600m

Dividends for the year = 7,600m x 0.07 = K532m

The normal dividend cover calculation using profit after tax = K1,470m/K532m = 2.76 times

The dividend using the free cash flow to equity = K1,225m/K532m = 2.30 times

(a)(iii)

Calculating the dividend cover using the profit after tax is thought to be misleading by some analysts because it is based on profits which can be subjective or easily manipulated. However, calculating the dividend cover using the free cash flow to equity is based on cash (and not earnings) and that is what is used to pay dividends. Therefore, dividend cover based upon free cash flow to equity would be considered a satisfactory level of assurance for ordinary shareholders in this regard.

**b) Types of risk**

(1) Transaction risk
This is the risk that a transaction in a foreign currency at one exchange rate is settled at another rate (because the rate has changed). It is this risk that the financial manager may attempt to manage and forms most of the work in the rest of this chapter.

(2) Translation (or accounting) risk
This relates to the exchange profits or losses that result from converting foreign currency balances for the purposes of preparing the accounts. These are of less relevance to the financial manager, because they are book entries as opposed to actual cash flows.

(3) Economic risk
This refers to the change in the present value of future cash flows due to unexpected movements in foreign exchange rates. E.g. raw material imports increasing in cost.

c)

If converted at spot on 10 August:

£90m x 1.5626 = $140.634

In 3 months' time, spot = 1.5836 – 1.5941

futures: 1.5891

Underlying transaction at spot:

£90m x1.5836 = $142.524

Loss on futures

| | |
|---|---|
| £90m × (1.5891 – 1.5681) | = ($1.89) |
| Net receipts | 140.634 |

**SOLUTION TW0**

Cost of debt

Calculate credit score ($Y$) using Kaplan Urwitz model for unlisted companies:

$Y = 4.41 + 0.001 Size + 6.40 Profitability - 2.56 Debt - 2.72 Leverage + 0.006 Interest + 0.53 COV$

Where:

- *Size* of the firm is measured by Total assets
- *Profitability* is measured by the ratio of Net Profit to Total assets
- *Debt* refers to the status of the debt stock; subordinated debt is assigned score 1, and unsubordinated debt is assigned score 0
- *Leverage* is measured by the ratio of long-term debt to total assets
- *Interest* refers to interest cover, which is measured by Earnings Before Interest and Tax (EBIT)/Interest Expense
- *COV* is the coefficient of variation in earnings, which measures volatility in earnings

Size = Total Assets = 150

$$Profitability = \frac{\text{Net Profit}}{\text{Total Assets}} = \frac{6.0}{150} = 0.04$$

Debt = Subordinated = 1

$$Leverage = \frac{\text{Long-Term Debt}}{\text{Total Assets}} = \frac{80}{150} = 0.533$$

$$Interest\ Cover = \frac{\text{EBIT}}{\text{Interest Payments}} = \frac{9.8}{1.2} = 8.167$$

$$COV = \frac{\text{Stdev}}{\text{Average Earnings}} = \frac{0.689}{8.8} = 0.078$$

**Note**: Since the company has been operating since 2018, the earnings record for the past five years is a sample of earnings. The standard deviation is therefore estimated as a sample standard deviation.

$Y$ = 4.41 + 0.001(150) + 6.40(0.04) − 2.56(1) − 2.72(0.533) + 0.006(8.167) − 0.53(0.078) = **<u>0.8139</u>**

(Total of 6 marks – 1 mark for each correct variable used to compute credit score)

With a credit score of 0.8139, BlueScale Ltd falls into the **BB credit rating**. The yield on 10-year corporate bonds with BB rating is **25.5%**.

After Tax Cost of debt = YTM x (1 – tax rate)

After Tax Cost of debt = 25.5% x (1 – 0.30) = <u>17.85%</u>

(a) Criteria used for credit rating
Criteria normally used by credit rating agencies in establishing credit rating of companies include the following:

| Criterion | **Explanation** | **Measures** |
|---|---|---|
| Country risk | Risk associated with the country in which the company is domiciled.<br>Based on the "sovereign ceiling" concept, no issuer's debt is rated higher than the rating of the country of origin | Country risk score of the country of origin.<br>Credit rating of the country of origin |
| Universal/country importance | The standing of the issuer relative to others in the country or globally. If universal/country importance is low, a lower rating is assigned. | Relative sales, profit, industry contribution to GDP |
| Industry risk | Strength of the industry within the country. If the issuer operates in a resilient industry, a higher rating may be assigned. | Cyclical nature of the industry, sensitivity of industry sales/returns to changes in the economy |
| Industry position | Position of the issuer in its industry. If the issuer is a major industry player, a higher rating may be assigned. | Relative operational efficiency |

| | | |
|---|---|---|
| Management evaluation | Assessment of quality of management. If overall quality of management is high, chances are that the company will do well financially and be able to discharge debt obligations. In this case, a higher rating may be assigned. | Company's planning, controls, financing policies, and strategies; management succession plan; financial achievements; qualification and experience of managers |
| Accounting quality | Assessment of the quality of financial reporting. High quality of financial reporting suggests that reported earnings can be relied upon, and this would enhance the issuer's credit rating. | Record of auditor's qualifications of financial statements; appropriateness of accounting policies for inventory, goodwill, depreciation; and extent of disclosure |
| Earnings protection | The ability of the company to maintain earnings in changing situations. High earnings power would enhance the issuer's credit rating. | Return on capital employed, pre-tax and net profit margin, diversity in sources of earnings and growth |
| Financial gearing | The extent of debt use in financing structure. High debt relative to assets suggests high default risks. If financial leverage is high, credit rating will be low. | Long-term debt to capital, total debt ratio; nature of assets; off-balance sheet commitments; working capital financing strategies |
| Cash flow adequacy | Ability to generate adequate cash flows to cover financial obligations, and business cash needs. If the firm generates adequate cash flows, there would be coverage for debt payments. This enhances credit rating. | Ratio of cash generated from operations to financial obligations |
| Financial flexibility | Ability of the company to raise needed funds from varied sources even under stress. High financial flexibility enhances credit rating. | Range of alternative financing sources, reserve borrowing capacity, banking relationships, debt covenants |

(b) Default probability and expected loss

(i) Probability of default

Default probability is estimated using the Black-Scholes OPM as follows:

Default probability = 1 – N ($d_2$)

$$d_2 = d_1 - s\sqrt{t}$$

$$d_1 = \frac{\ln\left(\frac{P_a}{P_e}\right) + \left(r + \frac{s^2}{2}\right)t}{s\sqrt{t}}$$

Pa = Fair value of assets = K150m
$P_e$ = face value of bonds = K80m
r = risk-free rate = 10%
s = volatility in asset value = 50%
t = time to maturity = 10 years

$$d_1 = \frac{\ln\left(\frac{200}{80}\right) + \left(0.15 + \frac{0.5^2}{2}\right)10}{0.5\sqrt{10}} = 2.3188$$

$$d_2 = 2.3188 - 0.5\sqrt{10} = 0.7377$$

$$d_1 = \frac{\ln\left(\frac{150}{80}\right) + (0.10 + \frac{0.5^2}{2})10}{0.5\sqrt{10}} = 1.82059$$

$d_2$ = d1 – 0.5√t

$d_2 = d_1 - 0.5\sqrt{10}$

$d_2$ = 1.82059 – 0.5(1.58114) = 0.23945

From the standard normal probability table, N ($d_2$ = 0.24) = 0.5948.
Default probability = 1 – 0.5948 = 0.4052
The likelihood (default probility) that BlueScale Ltd will default on bond payments is **40.52%.**

ii) Expected loss
Expected loss = Loss given default x default probability
Loss given default = Face value x (1 – recovery rate)
Loss given default = K80m x (1 – 0.6) = K32m

Therefore,
Expected loss = K32m x 0.4052 = K12.966m

**SOLUTION THREE**

**Exchange Rate Systems and Order from Saudi Arabia**

(a) A wide range of exchange rate mechanisms exist. These include:

(i) *Fixed or pegged exchange rates*, where a country fixes its exchange rate against the currency of another single country. There are more than 50 countries that maintain fixed exchange rate systems, mostly against the US dollar. Fixed rates are not permanently fixed, but periodic revaluations and devaluations occur when the economic fundamentals of the countries whose currencies are fixed strongly diverge, for instance due to inflation.

(ii) Others fix their exchange rates against a *basket of currencies* rather than a single one. The basket of currencies is often devised to reflect the major trading links to the concerned country. Using a basket of currencies is aimed at fixing the exchange rate against a more stable currency base than would occur with a single currency fix.

(iii) Flexible exchange rates against a single currency within a limited range of flexibility.

(iv) *A* joint float of a group of currencies. Prior to the monetary union the currencies within the Exchange Rate Mechanism (ERM) of the European Union participated in a joint float against external currencies, whilst maintaining a flexible exchange rate within agreed ranges against other ERM members.

(v) *Automatic exchange rate* adjustments against a set of economic indicators.

*(vi) A managed float (*dirty float). The central bank of countries using a managed float will attempt to keep currency relationships within a predetermined range of values (usually publicly announced), and will often intervene in the exchange markets by buying or selling their currency to remain within the range.

*(vii)* *Independent Float.* Almost 50 countries including the USA and the UK use what is known as an independent float whereby exchange rates are determined primarily by market forces. In reality purely independent floats are rare, as the central banks of these countries will periodically intervene in the foreign exchange markets, especially when there is speculative pressure against a currency.

Forecasting exchange rates is a difficult task for financial managers, as future rates are influenced by economic and other events that presently unknown and cannot be predicted.

Forecasting is more difficult when exchange rates are independently floating. The greater the government intervention in exchange rates, the easier they are to forecast, or the direction of exchange rate movement at least. The closer a currency is to inefficient market conditions, the greater the possibility that fundamental or technical analysts will able to forecast the exchange rate accurately. Fixed rates offer the best forecasting opportunity. With fixed exchange systems rates will either remain unchanged in the near future or, or if a devaluation or revaluation occurs, the direction of exchange rate *movement* will be obvious from inflation and interest rate differentials between two countries. The *timing* and *size* of devaluation will be less obvious.

(b) (i) According to Interest Rate Parity (IRPT) interest rate differentials between any two countries provide an unbiased predictor of future changes in the spot rate of exchange.

If interest rates are 10% in Zambia and 5% in Saudi Arabia, the expected exchange rate in a year's time is:

$F_0 = S_o \times \frac{(1+ic)}{(1+ib)} = K4.840 \times \frac{(1.05)}{(1.10)} = \underline{4.62}$

Repeating this calculation, the exchange rate in two years' time will be:

$4.62 \times \frac{(1.05)}{(1.10)} = 4.41$

The CFO has incorrectly used the relationships between the interest rates and exchange rates. It would appear that the CFO has got the interest rates wrongly, implying that the Saudi Riyal is expected to strengthen rather than weaken against the Kwacha (K4.840 x $(1.10/1.05)^2$ = K5.312/SAR

(ii) Forecasts of exchange rates using interest rates differentials are not likely to be accurate. Reasons for this include:

- The interest rate differential may change during the next two years
- Even if the interest rate differential remains constant, the IRPT is an unbiased not accurate predictor of future exchange rates.
- Exchange rates may not be in equilibrium at the current time. The IRPT predicts movements from an equilibrium position.
- Factors other than interest rates influence exchange rates, including government intervention in foreign exchange markets.

(c) (i) Since the order is not yet definite, if the subsidiary wishes to protect itself against foreign exchange risk at the bid stage an over the counter- the option from a commercial bank is suggested. If the bid is not successful, the option would not be exercised and the total cost would be the option premium. An option to sell Saudi Riyal (buy a put option on Riyal) could be taken for either:

(1) The full 18 month period until payment is due

(2) The period until the result of the bid is known and then a further hedge is taken for the remainder of the period if the tender is successful.

For a short maturity option, during the tender period the premium would be relatively low. The further hedge could be another option contract, or a money market hedge involving borrowing Saudi Riyal and converting it to Kwacha at the current spot rate. The sum to be borrowed plus interest would total the Riyal receipts in 18 months' time. The funds converted to Kwacha at spot would be immediately be available in Zambia.

(c)(ii) Estimates of future exchange rates may be made here using the Purchasing Power Parity Theorem (PPPT). Adding the PPPT formula gives:

Future spot (K/Riyal) in 18 months:

$S_o$ x $\frac{(1+hc)^{1.5}}{(1+hb)^{1.5}} = 4.840\ X\ \frac{(1.03)^{1.5}}{(1.09)^{1.5}}$ = 4.446

(This assumes that exchange rates are currently in equilibrium).

The normal price would be K7, 480, 000 x 1.25 = <u>K9,350,000</u>

At spot (using the purchase price of the Kwacha) this is: $\frac{9,350,000}{4.840}$ = <u>1,931,818</u> Riyals

However, in 18 months' time the Riyal is expected to have weakened. Using the forecast spot rate in 18 months' time as the basis of the bid gives:

$\frac{9,350,000}{4.446}$ = <u>2,103,014 Riyals</u>

If an option hedge is used the bid price could be increased by the amount of the option premium.

The recommended bid price should not be less than <u>SAR 1,931,818 plus the premium cost</u> of an option to buy Kwacha in 18 months' time at the present spot rate, or <u>2,103,014</u> Riyals if no foreign hedge is undertaken.

**SOLUTION FOUR**

(a) Cost of Capital

Cost of equity = 8%+1.12(20%-8%) = 21.44%

<u>Cost of debt</u>
Interest cost = 10% x K1000 x (1-0.15) = 85

| Period | Description | Cash Flow | Disc@10% | PV | Disc@15% | PV |
|---|---|---|---|---|---|---|
| 0 | MV | (1,100) | 1.000 | (1,100) | 1.000 | (1,100) |
| 1-5 | Interest | 85 | 3·791 | 322.24 | 3·352 | 284.92 |
| 5 | Redemption | 1,290 | 0·621 | <u>801.09</u> | 0·497 | <u>641.13</u> |
| | NPV | | | <u>23.33</u> | | <u>(173.95)</u> |

IRR = 10% + (23.33/23.33+173.5) X (15%-10%) =10.59%
Cost of debt = 10.59%

Cost of Capital = (21.44 x 0.65) + (10.59% x 0.35) =17.64% round off 18%

(b) **NPV linear programme**

Since the objective is to maximise the total NPV from these projects, it is initially necessary to calculate the NPV of each project at a discount rate of 18%:

| Year | 0 | 1 | 2 | 3 | 4 | NPV |
|---|---|---|---|---|---|---|
| **Discount@18%** | **1.000** | **0·847** | **0·718** | **0·609** | **0·516** | |
| | K'million | K'million | K'million | K'million | K'million | K'million |
| Project A | (2.55) | (4.5738) | 1.8309 | 3.2886 | 2.838 | 0.8337 |
| Project B | (2.54) | (2.15138) | 5.4209 | - | - | 0.72952 |
| Project C | (1.26) | 0.45738 | 0.3949 | 0.330078 | 0.27864 | 0.200998 |
| Project D | - | (3.4727) | (2.93662) | 3.90369 | 3.3024 | 0.79677 |
| Project E | (5.4) | 2.15985 | (3.8772) | 3.90978 | 3.3024 | 0.09483 |
| Project F | (2.5) | (1.2705) | 3.0156 | 1.55295 | - | 0.79805 |

The combination of projects, which will maximise the total NPV can now be specified, where:

a = the proportion of Project A to be undertaken
b = the proportion of Project B to be undertaken
c = the proportion of Project C to be undertaken
d = the proportion of Project D to be undertaken
e = the proportion of Project E to be undertaken
f = the proportion of Project F to be undertaken

The objective function, which represents the maximum NPV that can be earned, is:

z = 0.8337a + 0.72952b + 0.200998c + 0.79677d + 0.09483e + 0.79805f

This is subject to the following constraints:

Year 0: $2.55a + 2.54b + 1.26c + 5.4e + 2.5f \leq 5.51$

Year 1: $5.4a + 2.54b + 4.1d + 1.5f \leq 1.42 + 0.54c + 2.55e$

Furthermore: $0 \leq a, b, c, d, e, f \leq 1$

As you might be aware, the linear programme will provide the proportions of each project that should be undertaken in order to establish the value of z, which represents the maximum NPV achievable in view of the limitation of available funds. You may wish to know that the first constraint relates to the limited funds available at Year 0. The second constraint concerns the funds limitation at Year 1, which is of course eased by the Project C and E cash inflows, which can also be used to fund investment needs at that time. The third constraint shows that each project can only be undertaken once and that it is impossible to undertake a negative quantity of any project.

**SOLUTION FIVE**

(a) The balance of payments is a statistical record of a country's international trade transactions (current account) and capital transactions with the rest of the world over a period of time. Thus, if a country has a trade deficit and net capital flows are zero, the country would have a balance of payments deficit. To have a balance of payments surplus in the presence of a trade deficit, net capital inflows must exceed the trade deficit.

The statistics that are gathered are not wholly perfect and some transactions will be omitted. Therefore, this will bring about the balancing item which is unavoidable.

(b) Reasons for deficit

A current account deficit is caused when cash inflows from exports of goods and services, investment income and current transfers are lower than cash outflows on equivalent imports.
Actions to eliminate deficit If the deficit is persistent, the government may decide to finance it for a period by running down foreign currency reserves, or by borrowing from international banks, donor countries or international organisations such as the IMF. However, action must eventually be taken to inhibit imports or encourage exports. One or more of the following actions may be taken:

(i) Increasing interest rates

This will reduce the demand for local borrowing and hence for purchases (including imports), as well as attracting foreign funds to take advantage of the high interest rate.

(ii) Further reduction in the money supply

This can be done by increasing credit restrictions, or imposing wage and price controls.
Decreasing government expenditure will take cash out of the economy and reduce the government's budget deficit.

(iii) Increasing taxation

This will reduce further the demand for purchases (including imports).

(iv) Devaluing the currency

Alternatively, the currency can be allowed to float downwards, if it has previously been on a fixed exchange rate system. This will make export sales more competitive and imports more expensive.

(v) Controls

Imposing exchange controls (restrictions on selling the local currency), import tariffs and quotas can prevent or discourage purchases of imports. For countries which are part of the World Trade Organisation (WTO) such methods are restricted.

(vi) Subsidisation

Subsidising exports can be done in a variety of ways. Again this is restricted by the WTO.

(c) Effect on multinationals

The effect on multi-national companies of the above economic measures taken by governments varies as to whether the local subsidiary is a net exporter or importer.

**Subsidiary as exporter**

If the subsidiary extracts raw materials or produces goods with a predominantly local cost input, the devaluation of the currency will lower real costs and assist it to increase export sales, although local costs of taxation and borrowing will increase. However, the multinational may attempt to use transfer pricing to avoid the tax bill and may be able to switch borrowing to another country.

**Subsidiary as importer**

If the subsidiary is a net importer, designed to sell goods to the local population, it will probably find business more difficult until the reduction in demand caused by the economic measures has taken its effect. An exception is where tariffs, quotas or exchange controls are imposed, in which case the local subsidiary of a multinational will have an advantage over the restricted imports from foreign competitors. However, such restrictive measures are discouraged by both the WTO and the IMF.

**END OF SOLUTIONS**

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 15 SEPTEMBER 2023

TOTAL MARKS – 100: TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) **Compulsory** scenario question.
   Section B: FOUR (4) Optional scenario questions. Attempt any THREE (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

## SECTION A

**This question is compulsory and must be attempted.**

## QUESTION ONE

The Office of the Auditor General (OAG) has been requested to carry out a financial audit of a project under the School of Animal Husbandry of a public university.

The project is a $5m five (5) year donor aided project awarded by the American Research Institute following a successful proposal by a Director in the school. The agreement was signed by the Project Manager of the Research Institute on its behalf and by the Director of the university who is accountable for the use of project funds in accordance with the agreement.

The project agreement requires that project funds should be maintained in a dedicated bank account. The Director appointed a steering committee of four (4) comprising himself, two (2) Lecturers in his department and a Finance Officer & Finance Assistant. The Finance Officer and the Finance Assistant were specifically employed by the project. The Finance Officer is responsible for receipt of funds from the donor as well as processing all payments. The project does not have its own policies and controls in managing funds and procurement, the agreement provides that university procurement procedures and controls should apply. There is an approved budget on how funds are supposed to be used and this is under the custody of the Director and the Finance Officer. All payment requests are approved by the Director and cheques are signed by two (2) signatories one (1) of whom is the Director. At the end of each month the Finance Officer completes an electronic worksheet showing how funds have been utilized in the month in comparison with the budget. The Finance Officer maintains the cash book and prepares monthly bank reconciliations. Any expenditure above budget per budget line requires prior approval of the donor Project Manager.

The project agreement requires that annual financial statements should be prepared and audited by independent Auditors. At the end of the first year of the project, the Finance Officer recommended an audit firm to the Director who was awarded the contract to audit the financial statements. The same firm has audited the project financial statements for the first four (4) years and issued unmodified opinions throughout this period. During the duration of the project, the Finance Officer has not taken leave and instead commutes his leave day's entitlement for cash.

The bulk of the approved budget relates to business travel by the Director and others on project for research throughout the country. In addition, all local people around the country who participate in project activities are paid allowances in cash which they sign for. The Finance Officer draws cash whenever there is a trip for project activities and he travels with the team to ensure that cash is correctly paid out and signed for. Any funds not utilized are retained by the Finance Officer and used for future project activities. There are instances when project staff are given cash for use and paying out. Any unused funds are retired and given to the Finance Officer who keeps the money in the safe until needed for future use. No receipts are raised when funds are returned because they will have been charged in full against the relevant budget line.

A whistle blower informed the Vice Chancellor of the university about irregularities in the use of donor funds under the School of Animal Husbandry project. An investigation team of two (2) staff from the University Internal Audit Department were assigned to carry out preliminary investigations. They did not receive the corporation that they expected from the Finance Officer who denied them access to any project documentation arguing that it was the Director who was responsible and accountable. The next time the team wanted to meet the Finance Officer they were told that he was out of the country. Investigations revealed that he had flown out of the country to watch the final match of the world cup.

The Auditor General learnt of the misappropriation of project funds at a public university. He constituted a team of auditors to perform a financial audit of the financial statements from inception of the project.

The information about the misappropriation of project funds under the School of Animal Husbandry reached the Ministry of Education Permanent Secretary. The Permanent Secretary is concerned about the planned audit of the project funds by the Office of the Auditor General (OAG). He is worried that reports of the Auditor General are issued to the public and if the report confirms the misappropriation of funds, this will reduce donor confidence and may result in the American Government freezing all donor funding and this will have a negative impact on other projects in progress supported by the American Government.

He called a roundtable meeting with the Vice Chancellor and the Auditor General. The Permanent Secretary made the following proposals for consideration at this meeting:

1. The planned audit by the Auditor General's office should be put off because the agreement between the donor and the university does not require that the financial statements should be audited by the Office of the Auditor General (OAG). The financial statements for prior years have all been audited by the private auditors appointed by the project team.

2. If there is proof that funds were misappropriated, the people involved will be requested to pay back any such funds misappropriated.

3. The University should not support any future application for donor funds by the Director currently running this project if it is established that he misappropriated the project funds.

**Required:**

(a) (i) Discuss the need for the Office of the Auditor General (OAG) to carry out financial audits of project funds. (4 marks)

(ii) Identify and explain four (4) fraud risk factors that exist in the operations of project under the School of Animal husbandry. (8 marks)

(b) (i) Discuss the objective of a performance audit on the project under the School of Animal Husbandry. (6 marks)

(ii) Explain any four (4) matters that should be considered in the Compliance Audit of the operations of the project funds and suggest suitable criteria. (4 marks)

(c) Discuss the action that you should take in view of the advice by the Permanent Secretary, (8 marks)

(d) Explain how the suggestion by the Permanent Secretary will be contrary to the provisions of ISSAI 12: *Value and benefits of SAIs*. (10 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt any THREE (3) questions.**

**QUESTION TWO**

You are an Audit Team Leader at the Office of the Auditor General undertaking an audit of the financial statements of the Kuma Mission Hospital in Eastern Province. Your Audit Manager has reminded you of the requirement of ISSAI 1315, which requires the Auditor to perform risk assessment procedures to provide a basis for identifying and assessing the risk of material misstatement. These risk assessment procedures should include appropriate analytical procedures.

Therefore, as part of your planning you are designing some analytical procedures to perform prior to the first visit to the hospital to begin the on-site audit. Currently your focus is on the revenue and costs from providing surgical services as this area is particularly closely regulated by the Ministry responsible for health and the focus of ever more stringent efficiency requirements.

Your audit objectives in this area include the following:

To verify that all the relevant costs of the provision of surgical procedures have been included in the financial statements:

(1.) To verify that the hospital's costs of providing surgical services are sustainable in the context of the fees received for providing the different types of surgical procedure; and

(2.) To verify that appropriate management control has been exercised over the costs of the provision of surgical procedures.

You are also aware, that forming an audit opinion and preparing the auditor's report is the culmination of the work done during a financial audit. ISSAI 1700, *Forming an Opinion and Reporting on Financial Statements,* contains a number of requirements that must be met before an unmodified opinion on the financial statements may be provided.

**Required:**

(a) Explain the objectives of the auditor in conducting an audit of financial statements. (4 marks)

(b) Explain the difference between overall materiality and performance materiality. (4 marks)

(c) Formulate and describe an appropriate analytical procedure to meet each of the audit objectives listed above, clearly explaining what further action you would take after undertaking the procedure. (8 marks)

(d) Briefly describe the circumstances an auditor is required to modify the opinion in the auditor 's report. (4 marks)

**[Total: 20 Marks]**

## QUESTION THREE

You work for Office of the Auditor General (OAG) as a Director in the Ministerial Appropriation Audits Directorate. You were recently appointed Director and transferred from the Ministry of Finance where you worked as Controller of Audits.

You are planning an audit of the Ministry of Finance and the scope of the audit will consider the expenditure of the ministry for funds appropriated to it in the annual budget. The audit will cover a period of two (2) years. The Principal Auditor finalized the risk assessment for this audit and concluded that the audit risk is higher than expected. This is because of poor internal control systems and poor record keeping resulting in a high incidence of missing documents. The Principal Auditor suggested that in order to perform an effective audit, staff from the Office of the Auditor General (OAG) should be seconded to the Ministry of Finance for a period of three (3) months to enhance record keeping and assist in finalizing the accounting records for the period under review.

The Minister of Finance is concerned that the Office of the Auditor General (OAG) is delaying in commencing the audit. At a meeting with the Auditor General, he requested that this audit be expedited because it is a requirement by the International Monetary Fund (IMF) that independent audits of ministerial appropriations be conducted annually to ensure transparency and accountability in the use of public funds. He stressed that any delays in releasing a favorable audit report will derail the government efforts of obtaining a loan from the institution which would have far reaching consequences on the country's economy.

The Auditor General (AG) informed you that you should ensure that the audit is completed as soon as possible and the audit opinion should be favorable in view of the concerns of the Minister of Finance.

In response to the direction by the Director, the Principal Auditor appointed an audit team to perform the audit of the Ministry of Finance. Except for the Senior Auditor, the rest of the audit team comprises newly recruited Assistant Auditors who recently completed their induction in the operations of the Office of the Auditor General (OAG). It is hoped that in this way, confidentiality would be managed compared to where more experienced staff were assigned who may not want to conceal the findings from the public.

**Required:**

(a) Suggest a suitable response by the audit team considering the fact that audit risk in the audit of the Ministry of Finance has been assessed as high. (4 marks)

(b) Discuss the principles of transparency and accountability in the use of public funds drawing from the information in the scenario. (6 marks)

(c) Identify and explain five (5) ethical matters that should be considered in the audit of the Ministry of Finance and suggest suitable safeguards. (10 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

Puma Punku Mines is a parastatal organisation that owns and operates a copper mine in Copperbelt Province. It operates under a licence from the Mining Safety Department, which monitors the environmental impact of the mining industry and requires all licensed mines to be operated in compliance with strict health and safety regulations.

You are the Audit Manager at the Office of the Auditor General responsible for the audit of Puma Punku Mines. During the period under review, there was an accident at the mine where several hundred tonnes of rock collapsed, and this in turn caused tunnels to flood. One quarter of the mine cannot be entered now and for safety reasons the affected tunnels will be permanently closed. The management of Puma Punku Mines feel they can continue to operate in the rest of the mine as long as they make some health and safety improvements to ensure they comply with the Mining regulations.

One miner was killed in the incident and three are in intensive care in hospital. The tunnel collapse caused subsidence which damaged several homes in the village of Kalulushi located above the mine. A surveyor is examining the properties damaged to see if they can be repaired or must be demolished and rebuilt. In the meantime, fifty residents have been moved to hotel accommodation in the next town and Puma Punku Mines are paying for this. The miner who died has no known relatives and so Puma Punku Mines have decided, since all other people are now safe they will not report the incident to the Mining Safety Department.

**Required:**

(a) Describe the objectives of a compliance audit. (5 marks)

(b) Explain the three-party relationship on compliance auditing is based in the public sector. (6 marks)

(c) Describe the audit evidence which you should expect to find, in undertaking a compliance audit of Puma Punku Mines, with reference to the matters described above. (5 marks)

(d) Discuss the considerations related to the reporting of suspected unlawful acts, were Puma Punku Mines have decided not to report the incident to the Mining Safety Department. (4 marks)

**[Total: 20 Marks]**

**QUESTION FIVE**

In his opening speech to parliament, the President expressed great concern over the level of corruption in the government procurement system. He is concerned that despite procurement systems being in place, significant amounts of money are lost through government contracts resulting in government paying for goods and services not received. He implored members of parliament to support Government in its fight against the vice and demanded that the responsible ministries and departments immediately take measures to curb the high levels of corruption in procurement processes.

Specific mention was made of the procurement of essential drugs under a donor funded project. There were several instances of payments being made for items not received and this was done through showing larger quantities of goods received on the receipt documentation than the actual quantities received. There were clear alterations of quantities of goods received and despite these alterations no questions were raised and payment was made in full based on the altered quantities. There were several cases of the procurement procedures being followed by having three (3) quotations before awarding a tender but it turned out that the Tax Payer's Identification Number (TPIN) was the same for the three (3) quotations trading under three (3) different names but owned by the same directors. The President called for a forensic investigation so that the culprits could be identified and be prosecuted.

All Government procurement is supposed to be done in accordance with the public procurement guidelines issued by the Public Procurement division of the Ministry of Works and Supply. These guidelines were last reviewed and updated ten (10) years ago and they do not represent what is happening currently. A review of the Auditor General's reports issued in the last five (5) years revealed that the same observations and recommendations were made on many instances of non-compliance with procurement procedures. Inquiries on follow-up audits to check on implementation of recommendations revealed that very few recommendations were implemented and in most cases, the people involved in not following procedures were simply transferred back to cabinet office for redeployment to other ministries or departments. Majority of staff in the public service, who are responsible for procurement and handing of inventory, have necessary qualifications in the related fields. It was noted, however, that most of them are low in hierarchy and they are poorly paid resulting in dissatisfaction amongst them. Corruption fraud is a significant risk in the public sector and the public sector auditors should be alert to any corruption fraud which results in loss of public funds.

**Required:**

(a) Describe how performance and compliance audits will help deal with the concern over the procurement of essential drugs. (8 marks)

(b) Explain the objectives of the intended forensic investigation in the procurement of essential drugs. (4 marks)

(c) Identify and explain four (4) fraud risk factors in the government procurement systems. (4 marks)

(d) Explain any two (2) types of corruption fraud in the public sector. (4 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## CA 3.7 PUBLIC SECTOR AUDITS AND ASSURANCE SUGGESTED SOLUTIONS

### SOLUTION ONE

(a) (i) **Argument for audit of project funds:**

The Office of the Auditor General (OAG) is the external auditor of public institutions. The constitution provides that all institutions that receive public funds are subject to audits by the Auditor General.

In the case of the project funds in question the agreement with the donor requires that the financial statements prepared should be audited by independent auditors. The objective of the financial audit is for the auditors to form an opinion on the financial statements. The scope of the Office of the Auditor General is much wider than that of private auditors and the audit of financial statements.

In the case of the project funds for a project under a public university, the donor gave the grant under the auspices of the public university. The project is meant to benefit the citizens and they are subject to audits by the Auditor General in accordance with the constitutional mandate.

(ii) **Fraud risk factors in the running of the project:**

1. The Project Director wields too much authority with little involvement of other people in managing project funds.
2. The project agreement provides that the university policies and guidelines will be used in running project activities. This could cause problems in cases where project agreement requires different ways of managing funds different from those of the university. Fraud could be committed by misinterpreting university guidelines narrowly or arguing that they are in conflict with project agreement provisions.
3. The Finance Officer does almost all aspects of managing project funds from record keeping to handling cash. There is very little said about the work that the Finance Assistant does. Since the Finance Officer does most of the work there is a risk of misappropriating funds and then falsify the accounting records.
4. The Finance Officer who is responsible for maintaining accounting records and handling project funds individually recommended an audit firm to conduct audits of project funds. The Finance Officer has a personal interest and it is possible that he recommended someone who would not question decisions made.
5. The Finance Officer is responsible for requesting funds for distribution for project activities and he is the one who handles the money and makes payments. The handling of cash by one person is a fraud risk factor because records could be falsified in order to reconcile the records with funds paid and on hand.

6. The charging of expenditure to relevant cost accounts in full before undertaking an activity is a fraud risk factor in that where funds have not been fully utilized, forged documents can be used to show as if funds had been spent in full. Further, by not issuing receipts for funds paid back and using them on the next activity is a fraud risk factor.
7. The fact that the Finance Officer has not taken leave during the duration of his employment is a fraud risk factor. He would not like to have someone act in his place for fear of finding out the wrong things he may be doing.
8. Hostility towards staff assigned to carry out a preliminary investigation. It is unlikely that someone who has not committed a crime would not co-operate when questioned about operations they are involved in.
9. The lifestyle of the Finance Officer is indicative of fraud. Travelling out of the county by air to watch a final match of the world cup may be a sign that he misappropriated project funds to fund the trip.

(b) (i) **Objectives of performance audit of project funds:**

Performance audits are also known as value for money audits. In designing. a performance audit, the performance auditors require to establish the audit objective which will relate to one or more of the elements of value for money audits.

A performance audit of project funds will relate to the following measures of value for money:

**Economy** – This is a measure to establish whether the best prices would have been paid for goods and services by the project. The performance that is expected with respect to acquisition of inputs is called economy. Input economy describes the expectation that governments minimize the cost of program resources (relative to required levels of resource quality).

The performance that is expected with respect to acquisition of inputs is called economy. Input economy describes the expectation that governments minimize the cost of program resources (relative to required levels of resource quality).

Auditing economy in the use of financial resources entails determining the extent to which cash expenditures for specific nonmonetary resources, such as staff, facilities, and equipment, were reasonable or minimized relative to the quality needs of the program or activity. Examining economy in using physical resources includes determining, for example, whether space is used optimally (measured as square feet per full-time staff equivalent compared with benchmarks, standards, or comparable operations).

**Efficiency** – The public sector auditors wish to establish whether the output of the project could have been achieved using less resources. Process efficiency is technically measured as the relation between outputs and inputs. Outputs are the services or products produced by government program. Inputs are the resources expended or consumed. Inputs are measured by such units as person days, person hours, staff time, or full-time staff equivalents. The relation between outputs and inputs is measured by two primary efficiency ratios: unit cost and productivity.

The focus in audits of efficiency, is to study how the audited entities are able to use available resources to produce outputs. The use of resources is in general important in efficiency analysis, as the main question is if the resources have been used in the best way to produce output.

**Effectiveness** – This is a measure of whether the project has achieved its intended objectives.

Output effectiveness represents the quality of the services or products produced. In addition to the expectation that government programs should obtain inputs economically and conduct processes efficiently, citizens, taxpayers, and parliamentarians also expect governments to produce effective outputs. Expectations for output effectiveness can be established in a variety of forms, including output quantity, quality, and timeliness.

(ii) **Matters that will be considered in compliance audit of the project:**

The following matters will be considered when planning the compliance audit of the university project.

There will be need to obtain the agreement in order to gain an understanding of the terms of the agreement. The audit procedures will be designed in order to ensure compliance with the following:

1. A separate bank account maintained for the project funds.
2. From the procurement procedures of the university, extract details of the procedures and perform procedures to confirm they were complied with.
3. Actual expenditure within the budgeted amounts.
4. Verification that any over expenditure was authorized by the donor Project Manager in writing in accordance with the agreement.
5. Confirmation that independent annual audits were carried out as per condition in the agreement.

The suitable criteria for the compliance audit will be extracted from the agreement with the donor. The terms of the agreement will form the basis on which actual performance will be measured.

(c) **Action to take following advice of Permanent Secretary:**

According to the constitution of Zambia, the Office of the Auditor General is mandated to carry out audits of all recipients of public funds. The objective is for the public sector auditors to enhance transparency and accountability in the management of public resources. All public funds are supposed to be used for the benefit of the general citizenry of the country, The Office of the Auditor General has the mandate to audit all recipients of public funds and make public the reports arising from the audits.

Under the Zambian legislation, the Office of the Auditor General is empowered and required to report its findings annually and independently to parliament, and the reports should be published. The Constitution of Zambia provides that the Auditor-General shall not be subject to the direction or control of a person or an authority in the performance of the functions of his/her office.

Based on the provisions above, the Office of the Auditor General should respond as follows to the suggestions made by the Permanent Secretary:

1. That the Office of the Auditor General has a sole purpose of serving the interest of the general citizenry and not the interests of a few people.
2. That the Office of the Auditor General has a legal mandate to perform audits and carry out investigations as it deems fit and so will go ahead with the planned audit of the project activities.
3. The mandate of the Auditor General does not stipulate that it shall not audit financial information of public sector entities that have been audited by entity auditors.
4. The auditing standards and legislation requires the Office of the Auditor General to make public its findings and publish its reports. By publishing the reports, the Auditor General will be enhancing the principle of transparency and accountability and so will not accept the proposal of the permanent secretary.
5. Directing the Auditor General in terms of how he/she should work is contrary to legislation which states that the office shall not be directed by anyone in the performance of their duties.

**Conclusion:**
The Auditor General should inform the Permanent Secretary that he will go ahead with the planned audit unless he was prohibited by law from doing so.

(d) **Evaluation of suggestion against ISSAI 12 principles:**

1. The Permanent Secretary is concerned that is an audit is performed the results will be published. The argument against the conduct of the audit is contrary to one of the principles of ISSAI 12 which states that the AG should report on the results of its work by so doing making it easier for the public to hold government and other recipients of public funds accountable.
2. The Permanent Secretary is trying to direct the operations of the AG which is contrary to the principle that aims at safeguarding the independence of the SAI and avoid outside influence.
3. Suggestion to stop the audit will mean that the auditors will not be aiding the public accounts committee fulfill its mandate of offering oversight based on audit reports by the AG.
4. If the Supreme Audit Institution succumbs to the pressure from the Permanent Secretary to stop the audit, this will be contrary to the ISSAI 12 Principle that the

OAG should be a credible source of independent and objective guidance to support desirable change in the way public funds are spend and

5. If the auditor general abandons the planned audit this will be contrary to ISSAI 12 Principles which states that the OAG should demonstrate its ongoing relevance in responding to risks in the public sector.

**SOLUTION TWO**

(a) **The objective of a Financial Audit**

In conducting an audit of financial statements, the overall objectives of the auditor are:

1. To obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework; and
2. To report on the financial statements, and communicate as required by the ISSAIs, in accordance with the auditor 's findings.
3. Communicate to users, management, those charged with governance, or parties outside the entity, in relation to matters arising from the audit as required by the standard or by legislation.

(b) **Overall materiality and performance materiality:**

Overall materiality is set by the auditor at the planning stage of the audit. This is the level above which misstatements in the financial statements will be considered material. Performance materiality is defined as the 'amount or amounts set by the auditor at less than materiality for the financial statements as a whole to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality for the financial statements as a whole'.

This means that several misstatements, each below a materiality threshold, could add up to one that is above such a threshold. The auditor must thus plan such that they are likely, when performing the audit, to identity such multiple, smaller misstatements by setting 'performance materiality' somewhat lower.

(c) **Analytical procedure to meet each of the audit objectives in the question**

(i) A trend analysis of the total costs of the provision of surgical procedures with the cost in previous financial years. Any deviation from the trend may indicate errors in the allocation of costs and should be presented to management for them to provide explanations for the deviation. The persuasiveness of the explanations provided will help to determine the assessed risk to this objective and subsequent audit activity.

Significant variations will call for explanation from management and a review of supporting documents for payments made to ensure that they have been correctly classified and included in costs of providing surgical services.

(ii) Calculate the unit costs of the provision of each type of surgical procedure and compare with the fee paid for the delivery of the procedure. Although surpluses in one type of procedure can be used to offset deficits in the delivery of others, in the longer-term this will put pressure on the overall cost of delivery, particularly if the direction of travel on fees is downward. Trend analysis of costs and fees for different procedures would help to further assess sustainability in this area.

Where problems are apparent, management should be asked to provide details of their action plans to address the problems.

(iii) Expenditure and income on the provision of different types of procedure should be profiled over the year and compared with the hospital's budget for the procedures. Significant variances from budget may indicate problems in planning or cost/revenue control. Where variances occur, management should be asked to provide details of their analysis of the causes, and the action taken to bring actuals back into line with the budget, or to reallocate resources to meet requirements.

(d) **The circumstances an auditor is required to modify the opinion in the auditor 's report.**

The auditor should appropriately modify the opinion in the auditor 's report when the auditor:

1. Concludes that, based on the audit evidence obtained, the financial statements as a whole are not free from material misstatement; or
2. Is unable to obtain sufficient appropriate audit evidence.
3. Determines that the auditee did not comply with responsibilities prescribed by the financial reporting framework to:
   - Achieve fair presentation of financial information when it is a fair presentation framework;
   - Fulfil all requirements of the financial reporting framework when it is a compliance framework.

Modification of the opinion will be made by the auditor when the matter of concern is considered material. The form of modification will depend on whether the matter is considered pervasive or not.

**SOLUTION THREE**

**(a) Response to assessed high audit risk – Ministry of Finance.**

Since audit risk has been assessed as high at the planning stage of the audit of the Ministry of Finance, the action by the audit team would be different from the action that would be taken if it was an audit in the private sector.

In the private sector, the auditors would respond to the specific risks and respond to them to enable the auditors to reduce risk to acceptable levels. If this fails, the auditors would consider not accepting appointment for the first-time assignments or resign in the case of ongoing audits.

In the public sector the response would be different. The public sector auditors would respond to the assessed risk by trying and reduce the risk to acceptable levels. If this fails, however, the auditors may not resign no decline to perform the audit. It is a legal requirement that audits of public institutions should be carried out regardless of the risk levels.

The public sector auditors may wish to reduce the audit risk by extending the extent of further audit procedures that should be conducted. The main cause of a high audit risk is the poor system of internal controls resulting in a significant number of missing documents. The weaknesses in internal controls would be reported together with the other findings so that improvements are made.

**(b) Principles and accountability in the use of public funds:**

The principles of transparency and accountability apply to all recipients and custodians of public funds regardless of the nature. Transparency involves openness in the way public funds are spent while accountability is concerned with being answerable to the way funds are spent.

The objective of public sector audits is to enhance transparency and accountability in the use of public funds. The principles are applied to spending agencies and not the SAI to which ISSAI 20 applies.

Applying these principles to the case of the Ministry of Finance, the ministry should be open in the way funds have been spent and efforts to conceal short comings in the ministry in order to obtain financing from the International Monetary Fund is in conflict with the principles of transparency and accountability.

**(c) Ethical matters in the audit of the Ministry of Finance:**

| **Ethical matter** | **Safeguard** |
|---|---|
| 1. Secondment of OAG Staff to Ministry of Finance:<br><br>The suggestion by the Principal Auditor | Staff should not be seconded to the Ministry of Finance. The Supreme Audit Institution (SAI) should perform the audit and |

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|---|---|---|
| | that staff from the Office of the Auditor General (OAG) should be seconded to the Ministry of Finance for three (3) months is an ethical threat. This means staff from the Auditor General will be taking over a management role and this would result in a self-review threat. | recommend improvements in the controls systems in the report. |
| 2. | The request by the Minister of Finance that the audit should be expedited in view of the impending loan creates an ethical dilemma. The Office of the Auditor General (OAG) decides on its own how they will perform their work. Pressure should not be exerted from anyone on the speed of work. | A high quality audit should be performed despite the pressure to try and complete the audit within a specified time.<br><br>The audit team should inform the Minister that the work required will determine the completion of the audit. |
| 3. | The comment by the Minister of Finance that a favorable audit opinion is expected creates an ethical issue. The ethical value of independence and objectivity requires SAI staff to be independent from political influence and free from political bias. The Auditor General should inform the Minister that the opinion of the audit will be based on sufficient appropriate evidence. | The Auditor General should not succumb to the suggestion that, at all costs, a favorable report should be made regardless of the evidence obtained. |
| 4. | The assignment of audit team members should be based on skills and competences of the team members. Assigning newly recruited Assistant Auditors is contrary to the ethical value of professional competence and due care. Such conduct may rob the client of the competent professional knowledge and skill at the level required, based on current developments in audit practice. | Quality control guidelines suggest that staff with requisite experience and skills should be assigned to undertake audits. The Principal Auditor should not compromise and should assign staff who will be able to perform a quality audit. |
| 5. | The Auditor General informing the Director of Audits that the audit should | The Principal Auditor should assign suitable staff to the audit and the opinion should be |

| | |
|---|---|
| be speeded up and that a favorable report should be issued is contrary to the ethical value of independence and objectivity. The audit team should be left to do the audit and conclude based on evidence obtained. Further, it is professionally wrong for the Auditor General to request the Director to do what is clearly wrong. | based on evidence gathered. If the conclusion is unfavorable based on the evidence obtained it should be left as such, |

**SOLUTION FOUR**

(a) **The objective of a compliance audit**

The main objective of compliance auditing is to provide the intended user(s) with information on whether the audited public entities follow parliamentary decisions, laws, legislative acts, policy, established codes and agreed upon terms. These form the relevant authorities governing the subject matter/entity that is going to be audited. The authorities are the sources of audit criteria.

Compliance auditing includes both the aspects of regularity (adherence to formal criteria such as relevant laws, regulations and agreements) and/or propriety (observance of the general principles governing sound financial management and the conduct of public officials). Regardless of the source of criteria, the auditor performs the audit and forms a conclusion with the selected level of assurance, in accordance with the requirements in ISSAI 4000.

The SAI promotes good governance by identifying and reporting deviations from criteria, so that corrective action may be taken and so that those responsible are held accountable for their actions.

(b) **The parties in compliance auditing**

Public sector audits involve three separate parties: the responsible party, the auditor and the intended user(s).

1. The **responsible party is** the executive branch of central or local government and/or its underlying hierarchy of public officials and entities responsible for the management of public funds and/or the exercise of authority under the control of the legislature. The responsible party in compliance auditing is responsible for the subject matter or the subject matter information of the audit.

2. The **auditor** aims to obtain sufficient and appropriate audit evidence in order to arrive at a conclusion to enhance the degree of confidence of the intended user(s), other than the responsible party, about the measurement or evaluation of a subject matter against criteria.

3. The **intended user(s)** are the persons for whom the auditor prepares the compliance audit report. The intended user(s) may be legislative or oversight bodies, those charged with governance, the public prosecutor or the general public. While the audit report is not addressed to the responsible party, the result can be useful in the improvement of their performance.

(c) **Audit evidence which you should expect to find, in undertaking a compliance audit of Puma Punku Mines**

1. A copy of the operating licence, reviewed for conditions relating to health and safety and for potential fines and penalties which may be imposed in the event of non-compliance.
2. A written representation from management on their intention (or not) to bring the non-compliance to the attention of the Mining Safety Department.
3. A copy of board minutes where the accident has been discussed to identify the rationale behind the non-disclosure.
4. A copy of reports issued by engineers or other mining specialists confirming the extent of the damage caused to the mine by the accident.
5. Any quotes obtained for work to be performed to make the mine safe and for blocking off entrances to abandoned tunnels.
6. Confirmation that the undamaged portion of the mine is operational, e.g. from reviewing a specialist's report.
7. A copy of the surveyor's report on the residential properties, reviewed for the expert's opinion as to whether they should be demolished.
8. A review of correspondence entered into with the local residents who have been relocated, to confirm the obligation the copper street has committed to in respect of their relocation.
9. Copies of legal correspondence, reviewed for any further claims made by local residents.
10. A review of the Mine accident book
11. A copy of management's impairment review, if any, evaluated to ensure that assumptions are reasonable and in line with auditor's understanding of the situation.
12. Confirmation that impairment losses have been recognized as an operating expense.
13. A review of draft disclosure notes to the financial statements where provisions and contingent liabilities have been discussed.

(d) **Considerations regarding reporting unlawful acts:**

Puma Punku Mines operates in a highly regulated industry, and auditors must consider the requirements of ISA 1250 *Consideration of Laws and Regulations in an Audit of Financial Statements*. ISSAI 1250 states that it is management's responsibility to ensure that operations are conducted in accordance with relevant law and regulations. The auditor is expected to obtain a general understanding of the applicable legal and regulatory framework and how the entity is complying with that framework. In this case, there is a suspected non-compliance with the Authority's health and safety requirements.

In the case at hand, the mine has had an accident resulting in a fatality which should be reported to the Mining Safety Department. From the information given, it is clear that management of Puma Punku Mines intends to conceal the accident contrary to the mining license. Further, from an auditing point of view there are liabilities likely to arise due to the death and injury of staff.

ISSAI 1250 states that if the auditor becomes aware of information concerning an instance of non-compliance or suspected non-compliance with laws and regulations, the auditor shall obtain an understanding of the nature of the act and the circumstances in which it has occurred; and further information to evaluate the possible effect on the financial statements. Further audit procedures will therefore be necessary. The matter should be discussed with those charged with governance, as required by ISSAI 1250. Management should be asked to confirm the reason why the authority has not been notified of the accident, and a written representation should be obtained.

The auditors may wish to encourage management to disclose the accident to the authority. ISSAI 1250 also requires that the auditor shall determine whether the auditor has a responsibility to report the identified or suspected non-compliance to parties outside the entity. The Auditors needs to carefully evaluate their legal responsibility to report suspected non-compliance to the Authority, and legal advice should be obtained to determine the appropriate course of action. Confidentiality is an issue, as usually auditors cannot disclose information obtained during the audit to external parties without the prior consent of the client. However, this may be overridden in some cases by legislation or court order. In certain cases, disclosure in the public interest may warrant disclosure without client consent. Again, legal advice would be helpful here, to determine whether confidentiality can or should be breached and a report made to the Authority if management fail to do so.

**SOLUTION FIVE**

(a) Performance and compliance audits over procurement of essential drugs:

**Performance audit** – That can be done in the procurement of essential drugs is a value for money audit. The objective of the performance audit will be one of the following:

**Economy** – Are the best (least) prices being paid for the essential drugs or they could have been procuring for a lesser amount. Has the best price been paid?

**Efficiency** – Could more drugs be obtained from the same input resources without compromising on quality could more drugs have been obtained using the same resources?

**Effectiveness** – If the objective is procuring of the essential drugs in major hospitals, effectiveness will be measuring the availability of the essential drugs in the major hospitals.

**Compliance audit** – This is an audit aimed at establishing whether the procurement system of drugs is being done is being done in accordance with the set criteria. The criteria will be extracted from the procurement guidelines issued by the Public Procurement division of the Ministry of Works and Supply.

Audit procedures that will be designed will aim at establishing compliance with the laid down procedures.

(b) **Objective of the intended forensic investigation:**

The objective of the forensic investigation will be to establish whether the alleged fraudulent activities in the procurement of essential drugs did indeed occur.

This will include establishing:

- How the fraud took place and how it remained concealed.
- Who the fraudsters are?
- Establish how much money is involved.
- Obtaining admission of those involved.

(c) **Fraud risk factors in procurement system:**

1. Large amounts of money allocated for government procurement. This prompts staff involved in procurement to be involved in fraud of one kind or another.
2. Out of date procurement procedures still being used. Lack of updated systems could motivate staff in procurement to take advantage of any shortcomings in the procedures for personal gain.
3. Previous audits on procurement revealed the same observations over the years and there was no evidence to show that recommendations made were implemented. This is a clear case of not addressing known weaknesses to the system deliberately in order to get personal gain which staff take advantage of.
4. Lack of sanctions against staff who abrogate procurement procedures. Such people are simply transferred to cabinet office for reassignment or are transferred to other ministries.

5. The tendering process and competitive bidding for contracts means that corruption through means such as bribery are high. Because of the amounts involved it is not easy for procurement staff to resist.

(d)**The main types of corruption fraud:**

**Bribery** – this is where one (1) person is offered money or other gratification in return for a favorable decision. For example, in procurement, the receipt of money in order to award a contract not deserved.

**Extortion** – this is where money is demanded by force or threats in return for either doing or not doing something. For example, one being investigated for a wrongful act being coerced to pay money in return for not being reported to higher authorities.

**Conflict of interest fraud** – this occurs where the fraudster has a conflict between doing what is right and doing wrong all for personal gain. For example, in procurement, it could be the award of a contract to a company in which a close relative of the awarder has an interest.

## END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY PROFESSIONAL IN ACCOUNTANCY

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 15 SEPTEMBER 2023

TOTAL MARKS: 100; TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.

2. This paper is divided into TWO (2) sections:
   Section A: One (1) compulsory scenario question.
   Section B: Four (4) Optional scenario Questions. Attempt any three (3) questions.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

4. Do **NOT** write in pencil (except for graphs and diagrams).

5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.

7. All workings must be done in the answer booklet.

8. Present legible and tidy work.

9. Graph paper (if required) is provided at the end of the answer booklet.

10. Present Value and Annuity tables are attached at the end of this paper.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

**SECTION A**

**This question is compulsory and must be attempted.**

**QUESTION ONE**

**SCENARIO A**

In the 2022 fiscal year, Goliad Republic had serious challenges in its municipalities especially regarding the management of solid waste disposal, untarred roads, provision of health care, among other social challenges. A local leader, who lives within the community, believed that he could change the status by getting involved in issues of development without first involving the Government. He arranged for a meeting with other local people in which the local problems facing the community were discussed extensively. In this meeting, an executive committee was elected comprising of the chairman, secretary, treasurer and three (3) committee members.

The executive committee prioritized the tarring of the road. They obtained a quotation from a private company known as Complete Contractors Ltd (CC Ltd). Due to the agency of the task at hand, the contractor was single sourced for this exercise. The total cost of grading and tarring the road came to K2.5 million. The community members mobilized 30% of the cost from the local business communities and the households in that area. The chairman of the committee approached the Minister of Local Government who advised that they can apply for funds under the Municipality Development Fund (MDF) which was increased by 200% in 2023.

In order to qualify for the MDF, there was need for the community members to undergo a serious training programme which included acquiring skills in accounting and legal skills. They were also advised that once the Road has been built, a sign should be erected indicating that the funds partly used to build the road were from the MDF allocation. This was to ensure transparency and accountability and provide for an adequate audit trail and ensure that funds disbursed under MDF are traced to a particular project in order to enhance the Public Financial Management (PFM).

This was to apply to all funds used in building a structure. That particular structure should clearly have a label on it that funds used to build that structure were from MDF, for instance 'built from MDF Funding'.

**Required:**

(a) Explain the key components of the five (5) step business model in the development of a new project. (10 marks)

(b) Explain how the Public Expenditure Tracking Survey (PETS) can be used to provide a comprehensive assessment of Public Financial Management (PFM). (10 marks)

## SCENARIO B

A private company known as Tenedia Ltd was registered in Kilolia Republic. Tenedia Ltd's was engaged by Kilolia Republic thorough the normal Government procurement process. This company responded to the international advertisement for the procurement and installation of huge Solar Power plants in five (5) of the fifteen (15) provinces of Kilolia Republic. The solar power plants were to supply power to essential institutions and eventually to all households. The project was later to be rolled-out to other provinces if successful performance was recorded in the pilot provinces selected.

Tenedia Ltd was informed that they won the tender largely because of their experience in this area acquired from three (3) other similar projects they successfully undertook in other countries which resulted into reduced dependence on hydro -power by 50%. The evaluators also carried out an on the spot check on the performance of the power plants that were installed in the other countries. The other reason, among others, was that they had a very strong team of technical and financial experts who applied risk management and control activities by following risk management frameworks.

**Required:**

(a) Explain the difference between Private and Public Sector financial Risk. (4 marks)

(b) Explain the FOUR (4) broad types of fiscal risk control activities in the public sector. (8 marks)

(c) Explain the FOUR (4) ways in which risks can be treated by Tenedia Ltd. (8 marks)

**[Total: 40 Marks]**

**SECTION B**

**There are FOUR (4) questions in this section.**

**Attempt THREE (3) questions.**

**QUESTION TWO**

(a) The 2023 – 2025 Medium Term Budget Plan (MTBP) or Green Paper provides a platform for the Zambian Government to consult with all stakeholders on the intended course of action with regard to the country's development agenda in the next three years, which is anchored on the Eighth National Development Plan (8NDP).

**Required:**

(i) Explain the meaning of medium term budgetary frameworks (MTBFs). (2 marks)

(ii) Discuss how a medium-term financial plan can be used to support the delivery of other plans for a government department, particularly in times of financial uncertainty. (5 marks)

(iii) Discuss the range of activities the Director of Finance of a Government department can undertake to anticipate and manage fluctuations in funding to maintain appropriate levels of service over the medium term in an uncertain environment where sources of income are volatile. (8 marks)

(b) Extracts from the financial statements of the Lusaka Capital Council (LCC) for 2022 are as follows:

| **Item** | **2022 (Actuals)** | **2023 (Forecast)** |
|---|---|---|
| **Expenditure:** | **K'000** | **% Change** |
| Service Expenditure | (583,000) | (5) |
| Non- service expenditure | (15,000) | (13) |
| **Total expenditure** | **(598,000)** | |
| **Income:** | | |
| Government Grant | 150,000 | (17) |
| Business rates | 5,000 | Zero |
| Local growth Business Rates | 2,000 | 50 |
| Social housing Assistance | 3,000 | Zero |
| Adult Social Care | 30,000 | Zero |
| Other grants | 6,000 | (83) |
| Council Land Rates | 395,000 | 1 |
| **Total income** | **591,000** | |
| **Surplus/ (deficit)** | (7,000) | |

**Required:**

Prepare the 2023 draft budget for LCC, given that it is prepared incrementally by the council's Finance Manager based on forecast percentage changes. (5 marks)

**[Total: 20 Marks]**

## QUESTION THREE

Key sources of public revenue in Zambia include fees and charges. Government charges individuals or organisations fees for services and goods. Charging regimes can include contributions that partially offset the full cost to the Government of delivering the goods or service, or full cost recovery models, where users are charged the full cost or charged above the full cost to achieve profitability and sustain service provision.

**Required:**

(a) Using examples of a public service organization you are familiar with, discuss the argument for and against charging for public services. (10 marks)

(b) Discuss with examples and justification of the following charging methods that a central or local government department can use in pricing its services or goods:

(i) Variable costing; (2 marks)
(ii) Partial overhead charging; (2 marks)
(iii) Full cost charging; (2 marks)
(iv) Full cost plus Profit margin; (2 marks)
(v) Demand oriented charging, (2 marks)

**[Total: 20 Marks]**

## QUESTION FOUR

Assume you have just returned from a workshop which was held at a hotel in one of the provincial headquarters. The theme of the workshop was the "institutional framework of public finance management (PFM) in Zambia". The workshop was focused on the arms of Government including the Executive and the Legislature.

During the workshop it was highlighted that in a democratic system PFM needs to involve both the executive which develops and implements budgets and the legislature which provides the authority to raise and commit public resources.

The legislature authorizes spending through the budget document presented in Parliament by the Minister of Finance. During one of the presentations at the workshop, you learnt about the importance of the Ministry of Finance in National Development. The presenter emphasized that the Ministry of finance has a key role in the Zambian economic affairs.

In addition to its functions, you were informed by the presenter that the Ministry of Finance controls a significant number of statutory bodies and grant aided institutions.

Upon returning to your office, your supervisor has asked you to write a report on the workshop specifically focusing on the role of the Ministry of Finance in the economy.

**Required:**

Write a detailed report to your supervisor on the role of the Ministry of Finance in national development. Your report should cover the following:

(a) The functions of the Ministry of Finance in the Zambian economy and its associated responsibilities. (12 marks)

(b) Explanations of any four (4) roles of statutory bodies and grant aided institutions under the control of the Ministry of Finance. (8 marks)

**[Total: 20 Marks]**

## QUESTION FIVE

The Government of Country Z underwent a PEFA assessment in 2016. Below are the results of one of the pillars in the PEFA framework of 2016, Accounting and Financial Reporting. The Pillar has three indicators with ten (10) dimensions scored using the weakest link method (M1) and Average Method (M2).

Pillar (P1-07) Accounting and Financial Reporting

| Indicators/Dimensions | Description | Score |
|---|---|---|
| Indicator (P1-P07) Dimension 9M2) | Financial Data Integrity | To be determined |
| | Bank Reconciliation | D |
| | Suspense Accounts | D |
| | Advance Accounts | A |
| | Financial Data Integrity Process | C |
| Indicator 2 Dimension (M1) | In year Budget | To be determined |
| | Coverage and Comparability | C |
| | Timing of in year Budget reports | D |
| | Accuracy of in year Budget Reports | C |
| Indicator 3 Dimension 9M1) | Annual Reports | To be determined |
| | Completeness of Annual Reports | B |
| | Submission of Reports for | B |

| | | |
|---|---|---|
| | external Audit | |
| | Accounting Standards | C |

**Required:**

(a) Using the appropriate method, calculate the score of the three (3) indicators and interpret the reports. (4 marks)

(b) Suggest ways in which Government can improve indicators 2, In - Year budget. (4 marks)

(c) Differentiate between weakest link method and average method of scoring the performance indicators. (4 marks)

(d) Explain how Implementation of the Integrated Financial Management Information System (IFMIS) has supported the following Public Financial Management Functions:

(i) Cash Management (2 marks)
(ii) Financial Reporting (2 marks)
(iii) Budget and Budget Execution (2 marks)
(iv) Procurement Process (2 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

## Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

*Discount rate (r)*

| *Periods* (n) | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·990 | 0·980 | 0·971 | 0·962 | 0·952 | 0·943 | 0·935 | 0·926 | 0·917 | 0·909 | 1 |
| 2 | 0·980 | 0·961 | 0·943 | 0·925 | 0·907 | 0·890 | 0·873 | 0·857 | 0·842 | 0·826 | 2 |
| 3 | 0·971 | 0·942 | 0·915 | 0·889 | 0·864 | 0·840 | 0·816 | 0·794 | 0·772 | 0·751 | 3 |
| 4 | 0·961 | 0·924 | 0·888 | 0·855 | 0·823 | 0·792 | 0·763 | 0·735 | 0·708 | 0·683 | 4 |
| 5 | 0·951 | 0·906 | 0·863 | 0·822 | 0·784 | 0·747 | 0·713 | 0·681 | 0·650 | 0·621 | 5 |
| 6 | 0·942 | 0·888 | 0·837 | 0·790 | 0·746 | 0·705 | 0·666 | 0·630 | 0·596 | 0·564 | 6 |
| 7 | 0·933 | 0·871 | 0·813 | 0·760 | 0·711 | 0·665 | 0·623 | 0·583 | 0·547 | 0·513 | 7 |
| 8 | 0·923 | 0·853 | 0·789 | 0·731 | 0·677 | 0·627 | 0·582 | 0·540 | 0·502 | 0·467 | 8 |
| 9 | 0·941 | 0·837 | 0·766 | 0·703 | 0·645 | 0·592 | 0·544 | 0·500 | 0·460 | 0·424 | 9 |
| 10 | 0·905 | 0·820 | 0·744 | 0·676 | 0·614 | 0·558 | 0·508 | 0·463 | 0·422 | 0·386 | 10 |
| 11 | 0·896 | 0·804 | 0·722 | 0·650 | 0·585 | 0·527 | 0·475 | 0·429 | 0·388 | 0·305 | 11 |
| 12 | 0·887 | 0·788 | 0·701 | 0·625 | 0·557 | 0·497 | 0·444 | 0·397 | 0·356 | 0·319 | 12 |
| 13 | 0·879 | 0·773 | 0·681 | 0·601 | 0·530 | 0·469 | 0·415 | 0·368 | 0·326 | 0·290 | 13 |
| 14 | 0·870 | 0·758 | 0·661 | 0·577 | 0·505 | 0·442 | 0·388 | 0·340 | 0·299 | 0·263 | 14 |
| 15 | 0·861 | 0·743 | 0·642 | 0·555 | 0·481 | 0·417 | 0·362 | 0·315 | 0·275 | 0·239 | 15 |

| (n) | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·901 | 0·893 | 0·885 | 0·877 | 0·870 | 0·862 | 0·855 | 0·847 | 0·840 | 0·833 | 1 |
| 2 | 0·812 | 0·797 | 0·783 | 0·769 | 0·756 | 0·743 | 0·731 | 0·718 | 0·706 | 0·694 | 2 |
| 3 | 0·731 | 0·712 | 0·693 | 0·675 | 0·658 | 0·641 | 0·624 | 0·609 | 0·593 | 0·579 | 3 |
| 4 | 0·659 | 0·636 | 0·613 | 0·592 | 0·572 | 0·552 | 0·534 | 0·516 | 0·499 | 0·482 | 4 |
| 5 | 0·593 | 0·567 | 0·543 | 0·519 | 0·497 | 0·476 | 0·456 | 0·437 | 0·419 | 0·402 | 5 |
| 6 | 0·535 | 0·507 | 0·480 | 0·456 | 0·432 | 0·410 | 0·390 | 0·370 | 0·352 | 0·335 | 6 |
| 7 | 0·482 | 0·452 | 0·425 | 0·400 | 0·376 | 0·354 | 0·333 | 0·314 | 0·296 | 0·279 | 7 |
| 8 | 0·434 | 0·404 | 0·376 | 0·351 | 0·327 | 0·305 | 0·285 | 0·266 | 0·249 | 0·233 | 8 |
| 9 | 0·391 | 0·361 | 0·333 | 0·308 | 0·284 | 0·263 | 0·243 | 0·225 | 0·209 | 0·194 | 9 |
| 10 | 0·352 | 0·322 | 0·295 | 0·270 | 0·247 | 0·227 | 0·208 | 0·191 | 0·176 | 0·162 | 10 |
| 11 | 0·317 | 0·287 | 0·261 | 0·237 | 0·215 | 0·195 | 0·178 | 0·162 | 0·148 | 0·135 | 11 |
| 12 | 0·286 | 0·257 | 0·231 | 0·208 | 0·187 | 0·168 | 0·152 | 0·137 | 0·124 | 0·112 | 12 |
| 13 | 0·258 | 0·229 | 0·204 | 0·182 | 0·163 | 0·145 | 0·130 | 0·116 | 0·104 | 0·093 | 13 |
| 14 | 0·232 | 0·205 | 0·181 | 0·160 | 0·141 | 0·125 | 0·111 | 0·099 | 0·088 | 0·078 | 14 |
| 15 | 0·209 | 0·183 | 0·160 | 0·140 | 0·123 | 0·108 | 0·095 | 0·084 | 0·074 | 0·065 | 15 |

**Annuity Table**

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

*Discount rate (r)*

| *Periods* (n) | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·990 | 0·980 | 0·971 | 0·962 | 0·952 | 0·943 | 0·935 | 0·926 | 0·917 | 0·909 | 1 |
| 2 | 1·970 | 1·942 | 1·913 | 1·886 | 1·859 | 1·833 | 1·808 | 1·783 | 1·759 | 1·736 | 2 |
| 3 | 2·941 | 2·884 | 2·829 | 2·775 | 2·723 | 2·673 | 2·624 | 2·577 | 2·531 | 2·487 | 3 |
| 4 | 3·902 | 3·808 | 3·717 | 3·630 | 3·546 | 3·465 | 3·387 | 3·312 | 3·240 | 3·170 | 4 |
| 5 | 4·853 | 4·713 | 4·580 | 4·452 | 4·329 | 4·212 | 4·100 | 3·993 | 3·890 | 3·791 | 5 |
| 6 | 5·795 | 5·601 | 5·417 | 5·242 | 5·076 | 4·917 | 4·767 | 4·623 | 4·486 | 4·355 | 6 |
| 7 | 6·728 | 6·472 | 6·230 | 6·002 | 5·786 | 5·582 | 5·389 | 5·206 | 5·033 | 4·868 | 7 |
| 8 | 7·652 | 7·325 | 7·020 | 6·733 | 6·463 | 6·210 | 5·971 | 5·747 | 5·535 | 5·335 | 8 |
| 9 | 8·566 | 8·162 | 7·786 | 7·435 | 7·108 | 6·802 | 6·515 | 6·247 | 5·995 | 5·759 | 9 |
| 10 | 9·471 | 8·983 | 8·530 | 8·111 | 7·722 | 7·360 | 7·024 | 6·710 | 6·418 | 6·145 | 10 |
| 11 | 10·37 | 9·787 | 9·253 | 8·760 | 8·306 | 7·887 | 7·499 | 7·139 | 6·805 | 6·495 | 11 |
| 12 | 11·26 | 10·58 | 9·954 | 9·385 | 8·863 | 8·384 | 7·943 | 7·536 | 7·161 | 6·814 | 12 |
| 13 | 12·13 | 11·35 | 10·63 | 9·986 | 9·394 | 8·853 | 8·358 | 7·904 | 7·487 | 7·103 | 13 |
| 14 | 13·00 | 12·11 | 11·30 | 10·56 | 9·899 | 9·295 | 8·745 | 8·244 | 7·786 | 7·367 | 14 |
| 15 | 13·87 | 12·85 | 11·94 | 11·12 | 10·38 | 9·712 | 9·108 | 8·559 | 8·061 | 7·606 | 15 |

| (n) | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0·901 | 0·893 | 0·885 | 0·877 | 0·870 | 0·862 | 0·855 | 0·847 | 0·840 | 0·833 | 1 |
| 2 | 1·713 | 1·690 | 1·668 | 1·647 | 1·626 | 1·605 | 1·585 | 1·566 | 1·547 | 1·528 | 2 |
| 3 | 2·444 | 2·402 | 2·361 | 2·322 | 2·283 | 2·246 | 2·210 | 2·174 | 2·140 | 2·106 | 3 |
| 4 | 3·102 | 3·037 | 2·974 | 2·914 | 2·855 | 2·798 | 2·743 | 2·690 | 2·639 | 2·589 | 4 |
| 5 | 3·696 | 3·605 | 3·517 | 3·433 | 3·352 | 3·274 | 3·199 | 3·127 | 3·058 | 2·991 | 5 |
| 6 | 4·231 | 4·111 | 3·998 | 3·889 | 3·784 | 3·685 | 3·589 | 3·498 | 3·410 | 3·326 | 6 |
| 7 | 4·712 | 4·564 | 4·423 | 4·288 | 4·160 | 4·039 | 3·922 | 3·812 | 3·706 | 3·605 | 7 |
| 8 | 5·146 | 4·968 | 4·799 | 4·639 | 4·487 | 4·344 | 4·207 | 4·078 | 3·954 | 3·837 | 8 |
| 9 | 5·537 | 5·328 | 5·132 | 4·946 | 4·772 | 4·607 | 4·451 | 4·303 | 4·163 | 4·031 | 9 |
| 10 | 5·889 | 5·650 | 5·426 | 5·216 | 5·019 | 4·833 | 4·659 | 4·494 | 4·339 | 4·192 | 10 |
| 11 | 6·207 | 5·938 | 5·687 | 5·453 | 5·234 | 5·029 | 4·836 | 4·656 | 4·486 | 4·327 | 11 |
| 12 | 6·492 | 6·194 | 5·918 | 5·660 | 5·421 | 5·197 | 4·988 | 4·793 | 4·611 | 4·439 | 12 |
| 13 | 6·750 | 6·424 | 6·122 | 5·842 | 5·583 | 5·342 | 5·118 | 4·910 | 4·715 | 4·533 | 13 |
| 14 | 6·982 | 6·628 | 6·302 | 6·002 | 5·724 | 5·468 | 5·229 | 5·008 | 4·802 | 4·611 | 14 |
| 15 | 7·191 | 6·811 | 6·462 | 6·142 | 5·847 | 5·575 | 5·324 | 5·092 | 4·876 | 4·675 | 15 |

## CA 3.8 PUBLIC SECTOR FINANCIAL MANAGEMENT SUGGESTED SOLUTIONS

### SOLUTION ONE

### Q1 - SCENARIO A -SOLUTION

| | | |
|---|---|---|
| Q1 | Identify the key components of the five step business model in the development of a new project | (a) Components of the five step business model:<br><br>i. The "Strategic case "<br>ii. The "economic case"<br>iii. The "commercial case"<br>iv. The "Financial case"<br>v. The "management case" |
| | Explain how the Public Expenditure Tracking Survey(PETS) can be used to provide a comprehensive assessment of Public Financial Management(PFM) | (b) USEFULNESS OF PETS<br>i. Assessment of the performance and quality of public service delivery systems<br>ii. Identification of where the inefficiencies in the public expenditure systems and service delivery.<br>iii. Checking on whether there exists equity considerations that require being addressed In difference regions, societal groupings and urban/rural locations.<br>iv. Assessment of the effectiveness of the accountability processes as concerning the municipalities.<br>v. Determining whether special activities and expenditure allocations are being implemented as per requirements. |

**Q1 - SCENARIO B - SOLUTION**

| | |
|---|---|
| Explain the difference between Private and Public Sector financial Risk | (a) **Private Sector Financial Risk**<br>i. Risks on the Cash Flows<br>-Volatility in exchange Rates<br>-Volatility in Interest Rates<br>ii. Investment Decisions<br><br>**Public Sector Financial Risk**<br><br>**i.** Cash Flows<br>**ii.** Fiscal Risks<br>**iii.** Entity level financial risk |
| Identify and explain the four broad types of fiscal risk control activities in the public sector | (b) Fiscal risk control activities in the public sector<br>i. Direct controls, ceiling and caps<br>ii. Regulations, incentives and other indirect measures<br>iii. Risk transfer, sharing or insurance mechanisms<br>iv. Provisioning |
| Explain the four (4) ways in which risks can be treated by Tenedia Ltd | (c) Risks are treated by applying controls which can be any one of the four categories:<br>i. Preventive<br>ii. Corrective<br>iii. Directive<br>iv. Detective |

**SOLUTION TWO**

(i) Medium term budgetary frameworks (MTBFs) are defined as those fiscal arrangements that allow the government to extend the horizon for fiscal policy making beyond the annual budgetary framework.

(ii) Medium Term Financial Planning

Public sector organisations are usually involved in medium to long-term activities, or activities that are repetitive. The nature of their activities means that they are unlikely to cease to exist, and operate on the basis that they are a 'going concern'. It makes sense therefore to have a longer-term view on budgeting, to ensure that future service needs are likely to be affordable, given some known costs, and making assumptions about other costs and cash inflows.

Some funding cash flows are time released over the life of a project or grant period, and other grants may be released in stages in accordance with project milestones so multi-year budgets may be necessary to help identify where budget pressures will exist in future years.

Especially in times of uncertainty, financial planning is all about allocating finite resources over time, to reach the broad goals set out in an organisation's corporate or business plan. It is not enough for financial stewardship to demonstrate that the organisation is financially viable; it must go on to demonstrate that its activities are financially coherent.

Budgeting requires to be tied to organisational policy making and strategic planning. Otherwise a mismatch will arise between what is promised through local and national strategy, and what can be delivered within the financial constraints.

It is necessary for organisations to plan over medium term horizons say 2-5 year budgeting, and even long-term say up to 10 years or more to look at the longer-term impact that current spending plans may have on the organisation's sustainabilty.

A Medium Term Financial Strategy (MTFS), sometimes referred to as Medium Term Financial Plan (MTFP) supports business planning through identification of key budgets and the assumptions for change in future years.

The MTFS should be used by the organisation to effect real change. For this reason, the financial plan cannot be allowed to become wholly a financial document; it must be linked with other service planning, risk management arrangements and asset management plans. Medium-term financial planning is not just about forecasting financial flows; it has an important role in integrating and harmonising financial and other corporate strategies.

(iii) Short and long term strategic planning is impacted by reliance on volatile funding cash flows. Given plans to reduce deficits by governments, and similar other austerity measures in many countries, most public sector organizations have felt the financial squeeze over the past few years and given global uncertainties that continue such as the economic impact of the Covid - 19 pandemic, government grant funding can no longer be taken as certain. This is also the case for many charities and other organizations that rely on grants from local government.

Financial managers need to be:

1. Aware of conditions and performance targets attached to funding;
2. Confident that the risks are being managed around this; and
3. Informed if things are not on track

The ability to prepare appropriate financial plans in the short and long term will rely on innovative financial leaders, capable of supporting service delivery in their organizations.

To manage volatility in funding, it is important to have financial governance arrangements that include:

1. Reporting periodically to the management level of any organization including details of action planning and variance analysis is a must.
2. Actions are taken to address key risk areas.
3. The leadership should ensure appropriate financial skills are in place across all levels of the organization, for example a good understanding of unit costs and cost drivers.
4. Internal and external audit recommendations are not overdue for implementation.

The above factors need to be considered within a medium term financial plan (MTFP) linked to a medium term strategic plan or medium term financial strategy (MTFS). As well as good governance, one of the solutions for managing volatility in funding is to mitigate the risks as effectively as possible.

This includes:

1. Identifying the risky sources of funding
2. Assessing how likely they are to cease and what the impact of that would be (financially and operationally)
3. Managing the risks by putting appropriate controls in place to give early warning of potential problems
4. Mitigating the impact of risks through contingency planning
5. Monitoring and reporting on compliance with conditions of funding

Using long term agreements can help reduce the risk of volatility in funding by building in some certainty to long term financial agreements such as minimum guaranteed funding, and time bound release of funding to match budget cycles.

Financial managers should also limit price rises during the life of the contract, thus reducing the volatility of spending, so that smoothing of budgets can take place where volatile funding is likely. This can be achieved using fixed sum contracts.
Financial strategy should ensure that a range of income sources is used wherever possible to help smooth peaks and troughs in funding needs, and spread the risk of the loss of funding. Reliance on one source – be it government or one main benefactor – places an organisation in a much more financially risky position than one that is able to obtain smaller amounts of funding from a range of funding streams.

The most successful organizations that rely on external funding sources are those who:

1. Keep aware of funding sources that are available
2. Have enough resources to seek funding (which can be time consuming)
3. Complete applications on time, as often the time frame for application can be tight

Examples of government departments that have a dedicated officer for seeking grant funding from any source are much more successful in obtaining funding, and obtain more funding than departments which rely on officers applying for grants on a more ad-hoc basis as a small part of their day job.

This has been seen in practice, where a grants officer is employed and targets are usually set for generating grant income. Charities often employ dedicated staff to generate donations and fundraising and apply for grants.

(b)

| **Item** | **2022 (Actuals)** | **% Change** | **2023 (Forecast)** |
|---|---|---|---|
| **Expenditure:** | K'000 | | K'000 |
| Service Expenditure | 583,000 | (5) | 553,850 |
| Non- service expenditure | 15,000 | (13) | 13,050 |
| **Total expenditure** | **598,000** | | **566,900** |
| **Income:** | | | |
| Government Grant | (150,000) | (17) | (124,500) |
| Business rates | ( 5,000) | Zero | ( 5,000) |
| Local growth Business Rates | ( 2,000) | 50 | (3,000) |
| Social housing Assistance | (3,000) | Zero | (3,000) |
| Adult Social Care | (30,000) | Zero | ( 30,000) |
| Other grants | (6,000) | (83) | (1,020) |
| Council Land Rates | (395,000) | 1 | (398,950) |
| **Total income** | **(591,000)** | | **(565,470)** |
| **Surplus / (deficit)** | **(7,000)** | | **1,430** |

**SOLUTION THREE**

(a) Arguments for charging

Equity - relating payment to benefit

1. Eliminate hidden subsidies for service provision
2. Non-users of the services are not required to subsidise users. This occurs when taxation is used instead of charging - for example families with children who attend state schools are subsidised by tax payers who do not have children
3. Charge can reflect the scale of usage; for example, parking charges relate to the amount of time so occasional users are not subsidising frequent users.

There is evidence that even small charges can change behaviour.

Economy

1. Users are more likely to value and economise their use of something they have paid for than something they receive for free at the point of use
2. Promote competition and improve value for money where services can be provided by other suppliers

Rationing / efficient use of resources

1. Where services attract a charge, users will only buy that service when the cost to them matches the value they will receive.
2. Where services are free at the point of use there is a risk of over- supply and waste of resources

Accountability

1. Charging for services helps develop a relationship of accountability between provider and customer. Funding via taxation can reinforce anonymous bureaucratic service delivery
2. Service quality is usually under more scrutiny if the user has paid for the service rather than receiving it free at the point of use.

Arguments against charging

Equity – relating payment to ability to pay

1. The major barrier against charging for public services is moral. The price people are prepared to pay reflects both the value and their ability to pay for the service.
2. Discounts to certain groups (benefits claimants and those on low incomes) can create stigma and potentially the exacerbation of a dependency culture

Costs

1. Substantial resources may be required to implement effective charging mechanism
2. Administrative costs relating to and vouchers or discount schemes need to be calculated

Managing expectations of stakeholders

- Culturally, the public may be used to receiving public services free, and since they are not used to paying for them, they would have minimal knowledge of the true cost of the services and therefore be less willing to pay for them.

(b) The following list of charging methods that may be used in public services is not exhaustive and there will often be overlaps between the methods being described. The key thing for finance managers is that they should be aware of the different types of methods, consider when it is appropriate to use that method, depending on the nature and purpose of the charging method.

Variable costing

Charging clients with the variable/incremental costs of the services rendered. This would be appropriate for a service where the fixed costs are incurred regardless of the number of people using the service. An example might be use of a chapel for a memorial service at a council cemetery. The fixed costs of the building will be the same whether used or not, the variable costs would be related to utilities and staff to open and supervise its use.

Partial overhead charging

All variable/incremental costs are recovered, but only a proportion of fixed costs. The same proportion of overheads could be applied to chargeable services or could differ in relation to the services being provided. This is similar to variable costing, but might be used where the service is less sensitive, like the hire of a hall rather than the use of a chapel. Using a hall for a party and adding some costs for recovering general maintenance could be considered appropriate charging.

Full cost charging

All costs incurred in the provision of a service should be charged in this instance. Thus no subsidy will be required. This would normally be for a completely discretionary service, and where you did not want to make a profit, but also had no interest in influencing behaviour or usage.

Full cost plus a profit margin

A charge is set in order to create a surplus that will subsidise other services. This could be used for services that are peripheral in an organisation's service provision. For example, the pricing-out of halls of residences during student vacations. However, there may be an argument for charging these on a marginal cost plus basis.

Demand - orientated charging

At its simplest this is where charges will vary with changes in the levels of demand. If an organisation had a policy of recovering full costs – then very high demand would enable low charges to be set. If demand was low then higher charges would be needed to recover costs.

**SOLUTION FOUR**

To: The Supervisor

From: Subordinate

Date: 15th February 2023

RE: ROLE OF THE MINISTRY OF FINANCE IN NATIONAL DEVELOPMENT

1) Economic Management and Finance.
   Overseeing economic management, financial management and internal control.
   Economic management includes:
   (i) The development of monetary and fiscal policies to guide domestic resource mobilization and government medium and long term expenditure.
   (ii) Economic monitoring and analysis in conjunction with national financial institutions and other government agencies.
   (iii) Undertaking and coordinating external financial resource mobilization.

   Financial management includes:

   (i) Managing the financial resources of the republic of Zambia.
   (ii) Monitoring accounting processes.
   (iii) Reporting on the budget execution of public funds appropriated by parliament and disbursed by the budget office within the MOF.

   Fulfilling these functions involves the development of financial management policies and regulations, processes, procedures and systems to ensure the economic, efficient and effective use of public resources.

   With respect to internal control the MOF is responsible for promoting accountability in Ministries, spending agencies and other statutory bodies by ensuring effective controls are in place to manage the use of public finances.

   All of these functions are currently overseen by the economic management and finance division in MOF.

2) Budgets and economic affairs.

This includes facilitating preparation of the national budget and itd implementation, responsibility for management of government investments and the development and implementation of effective debt management strategies.

With respect to the budget, the MOF is responsible for:

(i) Budget preparation and implementation.
(ii) Managing cashflows for the republic.
(iii) Setting revenue targets for the Zambia revenue authority so as to fund releases to ministries , spending agencies and provinces.

Investment and debt management includes:

(i) Monitoring and evaluating the government's investments.
(ii) The management of the domestic and external debt stock including:
    a. -meeting debt service payment obligations.
        - Capital market operations to satisfy government cash flow requirements.

These functions are currently overseen by the budget and economic affairs division.

b) STATUTORY BODIES AND GRANT AIDED INSTITUTIONS UNDER THE MINISTRY OF FINANCE.

(i) The Bank of Zambia, aims to achieve and maintain price and financial system stability.

(ii) Pensions and Insurance Authority: Regulates the conduct of the pension and Insurance industry through prudential supervision.

(iii) Zambia Public Procurement Authority. - regulates public procurement and promotes innovation and integrity in the procurement process.

(iv) Zambia Revenue Authority – collects revenue on behalf of the government under the supervision of the ministry of finance. Its goal is to maximize the compliance and increase domestic revenue yield in Zambia by instituting a fair efficient and effective tax regime.

**SOLUTION FIVE**

| | | |
|---|---|---|
| Q 5 | (i) Calculate the score of the three indicators using appropriate method and interpret the reports | Indicator 1 is financial data integrity which is measured by four dimensions using the Average method (M2). In PEFA methodology, A = 4; B=3; C=2; and D= 1. Thus, the score of the indicator will be C derived as follow: (1+1+4+2)/4 = 8/4 = 2, equivalent to C. This means that the integrity of the financial data is average, indicating an average performance of public financial management in terms of financial data integrity.<br><br>Indicator 2 is in-year budget report which is measured by three dimensions using the Weakest Link Method (M1). Under this method, the poor performance on one dimension is likely to undermine the good performance in others, and therefore the score for the indicator should be the score on the lowest dimension, a plus is added if any of the dimensions scored higher. In the case, the performance of the indicator is D+, since D is the lowest scored dimension but other dimensions performed better so "+" is added. This is means in year budget performed poorly.<br><br>Indicator 3 is an annual financial report with three dimensions measured using the M1. The lowest score is B. This means that public financial management performs performed well in terms of annual financial reporting. |
| | ii) Suggest ways in which government can improve indicators 2: In - Year Budget | • Automate processing of payments.<br><br>• Include reporting deadlines in circulars at the beginning of the financial year.<br><br>• Monitor adherence of monthly submission of budget execution reports from Ministries.<br><br>• Build capacity in line ministries in financial reporting |

| | | |
|---|---|---|
| | (iii) Differentiate between weakest link method and average method of scoring the performance indicators. | Weakest link method: M1 (WL). This method is used for multidimensional indicators where poor performance on one dimension is likely to undermine the impact of good performance on other dimensions of the same indicator. In other words, this method is applied where there is a "weakest link" in the connected dimensions of the indicator.<br><br>Averaging method: M2 (AV). The aggregate indicator score awarded using this method is based on an approximate average of the scores for the individual dimensions of an indicator. Use of this method is prescribed for selected multidimensional indicators where a low score on one dimension of the indicator does not necessarily undermine the impact of a high score on another dimension of the same indicator. The difference is that whilst M1 is applied to connected dimensions, M2 is applied to dimensions independent of each other. |
| | b (i) Explain how Implementation of the Integrated Financial Management Information System (IFMIS) has supported the following Public Financial Management Functions: | (i) Cash Management - Government is able to report on its cash position on a daily basis. This is achieved through integrating IFMIS and the banking platform.<br><br>(ii) Financial Reporting – Financial transactions are reported to the ledgers immediately they are paid via the banking system.<br><br>(iii) Budget and Budget Execution – Budget execution reports are prepared timely and payments are done real time thereby enhancing service delivery.<br><br>(iv) Procurement Process – Procurement processes are easy to track considering that all procurements from initiation to stores distribution are done via the system. This makes it easy for to report on outstanding arrears. |

**END OF SOLUTIONS**